

M A R C H 2 0 0 9

REPORT TO THE CONGRESS

Medicare Payment Policy

MEDPAC Medicare
Payment Advisory
Commission



The Medicare Payment Advisory Commission (MedPAC) is an independent congressional agency established by the Balanced Budget Act of 1997 (P.L. 105–33) to advise the U.S. Congress on issues affecting the Medicare program. In addition to advising the Congress on payments to health plans participating in the Medicare Advantage program and providers in Medicare’s traditional fee-for-service program, MedPAC is also tasked with analyzing access to care, quality of care, and other issues affecting Medicare.

The Commission’s 17 members bring diverse expertise in the financing and delivery of health care services. Commissioners are appointed to three-year terms (subject to renewal) by the Comptroller General and serve part time. Appointments are staggered; the terms of five or six Commissioners expire each year. The Commission is supported by an executive director and a staff of analysts, who typically have backgrounds in economics, health policy, and public health.

MedPAC meets publicly to discuss policy issues and formulate its recommendations to the Congress. In the course of these meetings, Commissioners consider the results of staff research, presentations by policy experts, and comments from interested parties. (Meeting transcripts are available at www.medpac.gov.) Commission members and staff also seek input on Medicare issues through frequent meetings with individuals interested in the program, including staff from congressional committees and the Centers for Medicare & Medicaid Services (CMS), health care researchers, health care providers, and beneficiary advocates.

Two reports—issued in March and June each year—are the primary outlets for Commission recommendations. In addition to annual reports and occasional reports on subjects requested by the Congress, MedPAC advises the Congress through other avenues, including comments on reports and proposed regulations issued by the Secretary of the Department of Health and Human Services, testimony, and briefings for congressional staff.

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February 26, 2009

The Honorable Joseph R. Biden
President of the Senate
U.S. Capitol
Washington, DC 20510

The Honorable Nancy Pelosi
Speaker of the House
U.S. House of Representatives
U.S. Capitol
Room H-232
Washington, DC 20515

Dear Mr. Vice President and Madam Speaker:

I am pleased to submit the Medicare Payment Advisory Commission's March 2009 *Report to the Congress: Medicare Payment Policy*. This report fulfills the Commission's legislative mandate to evaluate Medicare payment issues and to make recommendations to the Congress.

The report contains six chapters:

- a chapter that provides context for those that follow by documenting the rise in Medicare and total health care spending,
- a chapter with seven sections that describes the Commission's recommendations on rate updates for the payment systems used by traditional Medicare,
- a chapter that provides updated statistics on enrollment in Medicare Advantage (MA) plans and our previous recommendations on the MA program,
- a chapter with updated statistics on enrollment and plan offerings for plans that provide prescription drug coverage,
- a chapter laying out the need for public reporting of physician financial relationships with pharmaceutical and device manufacturers, with the Commission's recommendations, and
- a chapter offering recommendations for reforming Medicare's hospice benefit.

I have been privileged to work on behalf of the Medicare program, and its beneficiaries, during my service in the Health Care Financing Administration (now known as CMS) in the 1980s and most recently during my tenure

at MedPAC. With my experience as chairman of the Commission, I would like to offer my perspective on the Medicare program, the issues it faces, and possible directions for reform.

Medicare is an indispensable part of American health care. Not only has Medicare financed essential care for many millions of America's disabled and senior citizens, it has helped finance investments in our health care delivery system that have benefited all Americans. Medicare has also pioneered payment methods that are credited with improving health care delivery and that have been adopted by many private insurers.

Medicare, as it currently operates, is unsustainable over the long term. As the baby-boom generation enters Medicare, the already wide gap between growth in program costs and growth in the tax base will widen further. Medicare spending per beneficiary has been increasing over 2 percent a year faster than gross domestic product for the last 30 years. At this rate of increase, there is the risk that Medicare will effectively crowd out spending on many important public programs, including those vital to preserving and enhancing the nation's health (e.g., spending on public health, biomedical research, and health professions training).

The nation's current economic straits, and the resulting increase in federal financial obligations, add a new dimension to the budgetary challenge. Medicare's soaring cost is no longer a future concern; it is part and parcel of a much more immediate, and dire, fiscal crisis. Given the huge increase in federal debt projected for the next several years, the fiscal reckoning long predicted for the future may become immediate.

Action is required soon; otherwise, the only ways to address the fiscal imbalance resulting from Medicare may be to increase taxes, increase beneficiary premiums, delay eligibility, and reduce benefits. These steps produce immediate savings for the federal budget but would be undesirable for both taxpayers and Medicare beneficiaries. We should make every effort to reduce the need for them. In addition, they do not address the harsh fact that we are squandering Medicare resources on care that is inefficiently delivered, of poor quality, or of limited value in improving the health of patients.

The fact that Medicare resources are going to waste leads us to consider a more difficult but better way to address Medicare's challenges: change how Medicare pays for care so as to encourage greater efficiency and value. Having spent many years working on Medicare issues, I believe there are directions we must go; during my tenure, the Commission made many recommendations that illuminate the way.

In broad terms, we must:

- Redesign and rebuild our deteriorating system of primary care. Rather than pay primary care clinicians fees based solely on the estimated value of the time and intensity of effort, we should also base payment on the value of primary care to a well-functioning health care system. We should also make lump sum per patient payments to reward primary care clinicians who build the necessary infrastructure for a patient-centered practice and achieve good outcomes.
- Move beyond the largely fee-for-service payment system used by Medicare, which rewards more care and more expensive care, without regard to its value. Not only should we reward the efficient use of scarce resources, we must reward health care providers for effectively integrating and coordinating care throughout an episode of illness, instead of operating autonomously in their respective silos.
- Revamp MA so that private plans offered to Medicare beneficiaries are rewarded for excellent performance, not just because they are private. The fact that private fee-for-service has been the most rapidly growing type of MA plan is evidence that the payment benchmarks are flawed and do not promote efficiency. Private fee-for-service plans largely mimic traditional Medicare, except at a much higher cost. Many, but not all, coordinated care plans have potential to provide unique value because they apply tools not readily available

to traditional Medicare, including greater flexibility in payment methods, the ability to encourage patients to use providers selected for their efficiency and effectiveness, and information systems that can improve the quality of care. Given the financial burdens descending on the federal government, it is unwise to pay all private plans more than traditional Medicare would have spent for the same patients, as has been the recent practice. It is also unwise to address perceived inequity in traditional Medicare through the MA rate structure. If payments in traditional Medicare are deemed too high in some parts of the country and too low in others, the proper solution is to alter traditional Medicare, not attempt to compensate through MA.

- Recognize that the growth in provider costs is not immutable—it is a product of how we pay. To protect taxpayers and beneficiaries, Medicare’s payment systems must constantly apply fiscal pressure on providers to constrain their costs. After all, the companies and employees who pay the taxes that finance the Medicare program are under fiscal pressure from their competitors, both domestic and foreign.
- Invest in better information on the effectiveness of treatment options so it might guide the decisions of patients, health care providers, and public and private insurers. Our nation spends over \$2 trillion on health care, yet we know far too little about the comparative effectiveness of alternative treatments. Such information is a public good, which has not—and will not—be spontaneously produced by the private market.

These are the directions that I believe Medicare must go, but plotting the exact route is admittedly a more challenging task. Having spent 15 years in government service as well as 10 years in private health plan and medical group management, I know that altering how providers are paid is complex, and it takes time and resources to develop, test, implement, and refine new payment methods. Moreover, the process is controversial because it inevitably entails a redistribution of income.

This complexity, and difficulty, must not deter us. If we do not take action soon, the only alternatives will be higher taxes and premiums and fewer benefits. Indeed, the difficulty and complexity of reform place a premium on moving ahead with “all deliberate haste.” To see tangible benefits 5 or 10 years from now, we must accelerate the pace of innovation and invest adequate resources in the task, especially more resources for CMS.

The dedicated professionals who work within our health care system can sometimes perform wonders for patients in need, but the system itself is taking an enormous toll. The cost is counted not just in wasted dollars but in lost lives, increased illness, and unnecessary pain and suffering. Unfortunately, the health care system’s capacity for healing itself is limited without payment reform. Medicare can lead the way to payment reform but only if the Congress acts quickly and decisively. The recommendations in this report and in previous MedPAC reports over the last five years provide the Congress with a path to payment reform. And, as always, MedPAC stands ready to assist you along that path.

Sincerely,



Glenn M. Hackbarth, J.D.
Chairman

Enclosure

Acknowledgments

This report was prepared with the assistance of many people. Their support was key as the Commission considered policy issues and worked toward consensus on its recommendations.

Despite a heavy workload, staff members of the Centers for Medicare & Medicaid Services were particularly helpful during preparation of the report. We thank Lori Anderson, Amy Bassano, Carol Bazell, Carol Blackford, William Buczko, Dana Burley, Rich Coyle, Rick Foster, Mark Freeland, David Gibson, Chris Haffer, Marc Hartstein, Steve Heffler, Anita Heygster, Peter Hickman, Terry Kay, Michelle Ketcham, Sheila Lambowitz, Jennifer Lazio, Miechal Lefkowitz, Clare McFarland, Renee Mentnech, Heidi Oumarou, Jason Petroski, Mary Pratt, Jacqueline Proctor, Cheri Rice, Judith Richter, John Shatto, Paul Spitalnic, Don Thompson, Cynthia Tudor, Lekha Whittle, and Laurence Wilson.

The Commission also received valuable insights and assistance from others in government, industry, and the research community who generously offered their time and knowledge. They include William Altman, Rochelle Archuleta, Doug Armstrong, Jack Ashby, Jim Baumgardner, Timothy Boon, Christine Brudevold, Carolyn Cassin, Don Cherry, Julie Cohen, Laurel Coleman, Anna Cook, Jim Cope, James Cosgrove, Allan Coukell, Bette Crigger, Juliette Cubanski, Peter Cunningham, Malene Davis, Maurine Spillman Dennis, Paul Eggers, Susan Ehringhaus, Jessica Farb, Laurie Feinberg, Karen Fisher, Beth Forrest,

Ron Fried, Barb Gage, Jane Galvin, Bruce Gans, Bowen Garrett, Kurt Gillis, Michael Girard, Marsha Gold, Peter Gruhn, Kris Haltmeyer, Joanna Hiatt, Patrick Hope, Kurt Hoppe, Ed Kalman, Ann Kaplan, Rebecca Kelly, Jon Keyserling, Barry Kinzbrunner, Andy Kramer, Susan Levine, Kathryn Linehan, Marian Lowe, Judi Lund-Person, Don May, Sharon McIlrath, John McManus, Katie Merrell, Bridget Montana, Cynthia Moran, Paulette Morgan, Cameron Muir, Sean Muldoon, Janet Neigh, Lyle Nelson, Tricia Neuman, David Nexon, Len Nichols, Peggy O’Kane, Claudia Schlosberg, Don Schumacher, Christian Shalgian, Sarah Silberstein, Elise Smith, Kathleen Smith, Rick Smith, Sherry Smith, Richard Sorian, Steve Speil, Mary Ellen Stahlman, Bruce Steinwald, Sylvia Trujillo, Jeff Van Ness, Bob Wardwell, Howard Weiss, Christopher White, Ron Wisor, Douglas Wissoker, Greg Wood, Stuart Wright, Lan Zhao, and Carolyn Zollar.

Once again, the programmers at Social and Scientific Systems provided highly capable assistance to Commission staff. In particular, we appreciate the hard work of Valerie Aschenbach, Helena Bacellar, Daksha Damera, Deborah Johnson, John May, Shelly Mullins, Scott Roberts, Cynthia Saiontz-Martinez, Bryan Sayer, Heather Seid, Mary Beth Spittel, Charles Thomson, and Susan Tian.

Finally, the Commission wishes to thank Cay Butler, Hannah Fein, and John Ulmer for their help in editing and producing this report. ■

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Executive summary

Executive summary

As required by the Congress, each March the Medicare Payment Advisory Commission reviews and makes recommendations for Medicare fee-for-service (FFS) payment systems and the Medicare Advantage (MA) program. In this report, we:

- consider the context of the Medicare program in terms of its spending and the federal budget and national gross domestic product;
- consider Medicare FFS payment policy in 2010 for: hospital inpatient and outpatient services, physician services and ambulatory surgical centers (ASCs), outpatient dialysis services, skilled nursing facility services, home health services, inpatient rehabilitation facility services, and long-term care hospital services;
- discuss the status of the MA plans beneficiaries can join in lieu of traditional FFS Medicare and review our MA recommendations;
- review the status of the plans that provide prescription drug coverage;
- make recommendations on public reporting of physicians' financial relationships with pharmaceutical and device manufacturers and health care providers; and
- make recommendations on reforming Medicare's hospice payment system.

With each passing year, the Commission's concern about Medicare's long-term sustainability intensifies. To slow the growth in Medicare expenditures, we have concluded that the Congress and CMS will need to make changes across a broad front. This report focuses on policy recommendations that would limit provider updates to create incentives for greater efficiency, reward quality, and modify payment rates to private plans and providers to improve payment accuracy. Other changes, which we discussed in our June 2008 report, include ideas for altering Medicare's payment systems to reward better coordination of care and efficiency over time and investing in information about comparative effectiveness. Changes in Medicare are complex to develop and implement. Time, therefore, is of the essence.

At the beginning of each chapter, we list the recommendations it contains. Within the chapters, we present each recommendation; its rationale; and its

implications for beneficiaries, providers, and program spending. The spending implications are presented as ranges over one- and five-year periods and, unlike official budget estimates, do not take into account the complete package of policy recommendations or the interactions among them. In Appendix A, we list all recommendations and the Commissioners' votes.

Context for Medicare payment policy

Medicare and other purchasers of health care in our nation face enormous challenges. As discussed in Chapter 1, health care costs are increasing for individuals and private and public payers, while quality frequently falls short of patients' needs. The Commission has recommended a number of measures to increase the accountability of providers and the value of care, such as pay for performance, measuring resource use, and comparing the effectiveness of medical treatments. The marked variation in both service use and quality of care across the nation suggests that opportunities exist for reducing waste while improving quality for beneficiaries. But realizing those opportunities will require addressing the myriad factors that drive the current health care system and may well require fundamental reform of the organization of health care delivery.

As is true for other purchasers of health care, Medicare's spending has been growing much faster than the economy. The growth in national income, the availability of newer medical technologies, and the cost-increasing effects of health insurance are thought to account for much of this long-term growth, and some of those forces will likely push future spending even higher. Medicare will have the additional challenge of higher enrollment associated with retiring baby boomers as will other programs that benefit the elderly, such as Social Security and Medicaid, creating additional competition for funds within the federal budget.

Because of these forces, the Medicare trustees and others warn of a serious mismatch between the benefits and payments the program currently provides and the financial resources available for the future. If Medicare benefits and payment systems remain as they are today, the trustees note that over time the program will require major new sources of financing and impose a significant financial liability on taxpayers. Medicare beneficiaries will pay for rising expenditures through higher premiums and cost sharing. Analysts across the political spectrum have raised

concerns that the current programs may become too heavy a fiscal burden and squeeze the funding for other federal priorities. The Congressional Budget Office finds that any feasible set of policy solutions will require a slowdown in the growth rate of spending on health care and may also require a substantial increase in taxes as a share of our nation's economy.

Delaying action would constrain the options for addressing Medicare's problems. Many changes, such as reconfiguring the delivery system to slow cost growth and increase quality, will take time to implement. As cost increases continue to outstrip revenue and the retirement of the baby boom generation draws closer, the time for phasing in major changes is growing shorter.

Assessing payment adequacy and updating payments in fee-for-service Medicare

The Commission makes payment update recommendations annually for FFS Medicare. An update is the amount (usually expressed as a percentage change) by which the base payment for all providers in a prospective payment system is changed. In Chapter 2, for each sector, we first assess the adequacy of Medicare payments for efficient providers in the current year (2009), taking into account policy changes (other than the update) that are scheduled to take effect in the policy year (2010) under current law. Next, we assess how those providers' costs are likely to change in 2010, the year the update will take effect. Finally, we make a judgment as to what, if any, update is needed.

The Commission may adjust the update to link Medicare's expectations for efficiency to the gains achieved by the firms and workers who pay taxes that fund Medicare. Competitive markets demand continual improvements in processes and quality from those workers and firms. Medicare's payment systems should exert the same pressure on providers of health services.

Hospital inpatient and outpatient services

Most indicators of payment adequacy for hospital services are positive. Access to hospital services continues to be good with more hospitals opening than closing. In fact, the overall level of hospital construction was at a record high in 2007. Many hospitals are expanding the services they offer their communities. Despite increasing competition from independent diagnostic testing facilities and ambulatory surgical centers, the volume of hospital outpatient services furnished to Medicare beneficiaries has grown, indicating that access is strong. Another

positive indicator is that quality-of-care measures are generally improving.

Access to capital has been erratic in 2008. Bond offerings and construction started off at a record pace in January but froze in September 2008 due to an economy-wide freeze of the credit markets. The difficulties in accessing capital resulted from a sudden economy-wide breakdown of the credit markets rather than any change in the level of Medicare hospital payments. Recently, hospitals with robust fundamentals have been able to issue debt, but even financially sound hospitals face higher interest rates.

While most payment adequacy indicators are positive, Medicare margins remain low. Average Medicare margins, which were -5.9 percent in 2007, are projected to fall to -6.9 percent in 2009 (after accounting for the effects of payment policy changes scheduled for 2010 under current law). While average margins are negative, some hospitals are able to generate profits treating Medicare patients.

Two observations inform our assessment of negative Medicare margins. First, unusually high hospital margins on private-payer patients can lead to more construction, higher hospital costs, and lower Medicare margins. The data suggest that when non-Medicare margins are high, hospitals face less pressure to constrain costs, costs rise, and Medicare margins tend to be low. In 2007, hospitals' non-Medicare profits, total (all-payer) profits, and hospital construction were at the highest levels in a decade—and Medicare margins were negative. Because not all hospitals had high margins on non-Medicare patients, we were able to investigate how hospitals reacted to differing levels of financial pressure. We found that hospitals facing significant financial challenges in recent years (2004 through 2006) tended to have lower costs and hence higher Medicare margins in 2007 than hospitals with high private payer margins and less financial pressure.

The second observation is that while Medicare margins for hospitals may be negative in aggregate, Medicare payments may still be adequate to cover the costs of efficient hospitals. To explore this question, we have examined financial outcomes for a set of hospitals that consistently perform well on cost, mortality, and readmission measures and have exemplary performance on at least one of the measures. We found that Medicare payments on average roughly equaled the costs of these relatively efficient hospitals.

Balancing the findings of our payment adequacy indicators, the Commission recommends an update equal to the projected increase in the market basket for inpatient and outpatient services, with this update implemented concurrently with a quality improvement program. Given the mixed payment adequacy indicators, a hospital's quality performance should determine whether its payments increase more or less than the market basket.

In 2007, indirect medical education (IME) payments to teaching hospitals totaled \$6 billion. We find that these payments exceed the estimated indirect costs associated with teaching residents. Therefore, we again recommend a reduction in the IME adjustment equivalent to 1 percentage point to 4.5 percent per 10 percent increment in the resident-to-bed ratio. The savings would be used to help fund a quality improvement program.

Physician services and ambulatory surgical centers

We assess overall payment adequacy for physician services in FFS Medicare, examine payments for expensive imaging services, and assess payment adequacy for ASCs—facilities that are typically owned all or in part by physicians.

Physician update and primary care Our analysis of physician services provided in FFS Medicare finds that, overall, most indicators of payment adequacy are positive and stable, ensuring that most beneficiaries can obtain physician care when they need it. However, the Commission remains concerned about access to primary care services and providers.

- Our survey of beneficiaries in the fall of 2008 indicates that beneficiary access to physicians is generally good and—in several measures—better than that reported by privately insured patients age 54 to 60. The one exception is among the small share of beneficiaries (6 percent) who reported that they looked for a new primary care physician—28 percent reported problems finding one.
- Physicians continue to accept and treat Medicare patients: 92 percent of office-based physicians who receive 10 percent or more of their practice revenue from Medicare were accepting new Medicare patients in 2007, and the share of physicians signing participation agreements with Medicare was 95 percent in 2008.

- Medicare payment rates continue to be about 80 percent of private insurance payment rates as they have for the past decade.
- In 2007, the volume of physician services provided per beneficiary grew almost 3 percent.

In light of these findings, the Commission recommends that for 2010 the Congress update payments for physician services by 1.1 percent—the same percentage increase as the Congress set for 2009.

The Commission remains concerned that primary care services are undervalued and at a significant risk of being underprovided, despite some recent increases in payments for primary care services. To underscore the urgency of this issue, the Commission voted to reiterate its previous recommendation that payments for primary care services be increased when provided by practitioners who focus on primary care. This adjustment would be budget neutral within the fee schedule. It would require statutory authority.

Changing payments for expensive imaging services

The Commission recognizes that there has been rapid technological progress in diagnostic imaging over the past several years, which has enabled physicians to diagnose and treat illness with greater speed and precision. However, we are concerned that the rapid volume growth of costly imaging services in recent years may signal that they are mispriced. High rates for imaging services lead to lower rates for primary care and other services.

CMS's method for setting practice expense (PE) relative value units (RVUs) for advanced imaging services assumes that imaging machines are operated 25 hours per week, or 50 percent of the time that practices are open for business. Setting the equipment use factor at 25 hours per week—rather than at a higher level—has led to higher PE RVUs for these services. Higher payment rates encourage providers with low expected volumes to purchase expensive imaging machines. Once providers purchase machines, they have an incentive to use them as frequently as possible. Indeed, there is evidence that MRI and computed tomography machines are used much more frequently than Medicare assumes.

The Commission recommends that Medicare adopt a normative standard in which providers are assumed to use costly imaging machines at close to full capacity (45 hours per week, or 90 percent of the time that providers

are assumed to be open). Such a normative standard would discourage providers from purchasing expensive imaging equipment unless they had sufficient volume to justify the purchase. The Secretary should start by adopting a standard of 45 hours per week for all diagnostic imaging machines that cost at least \$1 million and should explore applying this standard to imaging equipment that costs less. This change would reduce PE RVUs for costly imaging services and increase RVUs for other physician services.

Payment adequacy for ambulatory surgical centers

Physicians furnish outpatient surgical services in their offices, hospital outpatient departments (HOPDs), and increasingly, ASCs. ASCs are a source of revenue for many physicians, as over 90 percent of ASCs have at least one physician owner. ASCs offer several advantages to physicians and patients over HOPDs. Physicians have greater control and may be able to perform more surgeries per day in ASCs because they often have customized surgical environments and specialized staffing. Patients may be able to schedule surgery more quickly, experience shorter waiting times, and find ASCs that are more conveniently located.

We find that the indicators suggest that ASC Medicare payment rates are adequate. From 2002 to 2007:

- Medicare revenue increased from \$1.9 billion to \$2.9 billion.
- The number of ASCs grew by an average of 6.7 percent per year.
- Volume per beneficiary grew by 9.8 percent per year.
- The number of Medicare beneficiaries served in ASCs increased by 7.5 percent per year.

CMS made substantial changes to the ASC payment system in 2008. The most significant changes include a different method for setting payment rates, allowing separate payment for certain ancillaries, and a 32 percent increase in the number of surgical procedure codes covered under the ASC payment system. Under the revised payment system, 86 percent of all procedures have a higher payment rate than under the old system. However, the highest volume procedures have lower payment rates. If ASCs diversify the procedures they provide to Medicare beneficiaries over the four-year transition period to the new payment system, they should be able to maintain or increase their Medicare revenue.

Weighing our findings on payment adequacy and the revised payment system, the Commission recommends that ASCs receive a payment update of 0.6 percent in calendar year 2010. The Commission also recommends that ASCs be required to submit cost and quality data to the Secretary.

Outpatient dialysis services

Most of our indicators of payment adequacy for outpatient dialysis services are positive. The growth in the number of dialysis facilities and treatment stations has kept pace with the growth in the number of dialysis patients, suggesting continued access to care for most dialysis beneficiaries. The growth in the number of dialysis treatments—one indicator of the volume of services—has kept pace with patient growth between 2006 and 2007. The total volume of most dialysis drugs administered grew between 2004 and 2007 but more slowly than in the past because of statutory and regulatory changes that lowered the payment rate for most dialysis drugs.

Some measures of quality of care are improving. Use of the recommended type of vascular access—the site on the patient’s body where blood is removed and returned during hemodialysis—has improved since 2000. More patients receive adequate dialysis and have their anemia under control. However, improvements in quality are still needed. For example, the proportion of dialysis patients registered for the kidney transplant wait list does not meet the goal set forth by the Centers for Disease Control and Prevention’s Healthy People 2010.

Recent evidence about trends in the increase in the number of dialysis facilities suggests that providers have sufficient access to capital. Both the large dialysis organizations and smaller chains have obtained capital to fund acquisitions.

The Medicare margin for composite rate services and dialysis drugs for freestanding dialysis facilities was 4.8 percent in 2007. The two largest dialysis chains (which may benefit from economies of scale) realized a higher Medicare margin than other freestanding providers (6.9 percent versus 0.2 percent). We project the overall Medicare margin for freestanding dialysis facilities will be 1.2 percent in 2009.

The sum of these indicators suggests that a moderate update of the composite rate is in order. Therefore, the Commission recommends that the Congress maintain current law and update the composite rate by 1 percent for calendar year 2010.

Skilled nursing facility services

Our indicators of the adequacy of Medicare payments to cover the costs of skilled nursing facility (SNF) services to beneficiaries are generally positive. These indicators include a stable supply of providers, a slight increase in service volume, and growth in Medicare margins. Quality indicators were mixed. Access to capital is tight, reflecting general uncertainty in the financial markets, not the adequacy of Medicare payments. Most beneficiaries continue to have good access to services, especially rehabilitation services. However, patients seeking medically complex care may experience delays in placement. In 2006, fewer facilities admitted medically complex patients than admitted rehabilitation patients and, since 2002, these types of admissions have been increasingly concentrated in fewer facilities. This trend reflects distortions in the current payment system and we made recommendations to correct them in our June 2008 report.

Between 2006 and 2007, Medicare costs for freestanding SNFs grew faster than in the period between the two previous years. However, Medicare payments continued to outpace SNF costs, in part because of the increase in the days classified into the highest payment case-mix groups. As a result, the aggregate Medicare margin for freestanding SNFs was 14.5 percent in 2007, making this the seventh consecutive year that the aggregate Medicare margin was above 10 percent. The aggregate margin for 2009 is projected to be 12.6 percent.

Because indicators are generally positive and SNF payments are more than adequate to accommodate anticipated cost growth, the Commission recommends a zero update for 2010. Hand-in-hand with this recommendation about the level of payments, we reiterate recommendations in two of our previous reports that would affect the distribution of payments: to revise the SNF payment system to more accurately reflect providers' costs (June 2008) and to adopt a pay-for-performance program to improve quality (March 2008). The growing concentration of medically complex cases in fewer SNFs, the continued growth and intensity of rehabilitation days, and the wide variation in Medicare margins underscore the inequities and poor incentives of the current prospective payment system (PPS) design. Recommended revisions to the PPS would more accurately reflect providers' costs to treat different types of cases, thereby reducing the incentive to admit certain patients over others and narrowing the Medicare margins across facilities.

Home health services

Indicators of payment adequacy for home health services are positive. Access, volume, and the supply of agencies remained stable or increased, suggesting that Medicare beneficiaries have adequate access to care. Quality continued to improve, and the turmoil in the financial markets does not appear to have significantly impaired access to capital for this industry. Home health agencies continued to be paid significantly more than cost, with margins of 16.6 percent in 2007. The home health industry has maintained average Medicare margins of about 16.5 percent a year since 2002. In part because the product has changed, the average number of visits per episode has dropped 30 percent from 1998 to 2007.

In 2007, volume and average payment per episode continued to rise, with total payments growing 12 percent to \$16 billion. The number of home health users also rose, even as enrollment in Medicare FFS declined. The type of episodes provided continued to shift to higher paying services. At the same time, home health agency costs have remained low. We estimate home health margins to be 12.2 percent for 2009.

Because of the consistently high margins and other positive indicators, the Commission has concluded that home health payments should be significantly reduced in 2010 and 2011 to ensure that Medicare does not continue to overpay home health providers. Therefore, the Commission recommends that the Congress should eliminate the market basket increase for 2010 and advance the planned reductions for coding adjustments from 2011 to 2010, so that payments in 2010 are reduced by 5.5 percent from 2009 levels. Home health payments will be more than adequate in 2009, and efficient providers should be able to absorb increases in the cost of care even at reduced payment levels in 2010.

The Commission also recommends that the Congress should direct the Secretary to rebase rates for home health care services in 2011 to reflect the average cost of providing care. The home health product has changed substantially since the PPS was established, and the current rates are well in excess of the efficient provider's costs. The reduction in 2010 will begin the process of reducing payments to appropriate levels, but current margins suggest that further reductions will be necessary. The recommendation for 2011 will require that the Secretary base the rates for that year on the estimated cost of care for the average home health episode.

However, the Commission is concerned that quality of care be maintained when the rebasing is implemented. Thus, the Commission also recommends that the Congress should direct the Secretary to develop payment measures that protect beneficiary care. Two types of safeguards need to be developed: financial safeguards that can be proposed concurrently with the rebasing recommended for 2011, and quality-of-care safeguards linking payment to avoidance of adverse events that can be implemented as soon as practicable.

Inpatient rehabilitation facility services

Our assessment of payment adequacy for inpatient rehabilitation facilities (IRFs), which provide intensive rehabilitation services in an inpatient setting, reflects recent changes in Medicare policy that significantly affect the volume of IRF services. In 2004, CMS renewed enforcement of the 75 percent rule, which required IRFs to have a certain percentage of admissions with one or more of a specified list of conditions. The compliance threshold was to be phased in from 50 percent to 75 percent over several years. Before the phase-in to 75 percent was complete, the Congress set the compliance threshold permanently at 60 percent from July 2007 going forward, in one of several provisions of the Medicare, Medicaid, and SCHIP Extension Act of 2007 (MMSEA) related to IRF services. The overall policy goal of the rule is to direct the most clinically appropriate cases to this intensive, costly setting. The renewed implementation of this rule was expected to result in a decline in IRF volume for certain types of cases and an increase in IRF average patient complexity, and hence case mix.

Our indicators of Medicare payment adequacy on net were more positive than negative. From 2004 to 2007, Medicare IRF discharges declined as was expected, but the number of IRF beds did not decline as much—suggesting that capacity remains adequate to meet demand. With the decline in IRF volume, there has been a corresponding increase in the volume of patients in home health and SNFs, suggesting that beneficiaries who would have received care in an IRF are receiving care in other settings. Access to capital has tightened in 2008 due to the economy-wide credit crisis. However, the changes in the credit markets are not related to Medicare payment changes. Measures of quality (functional gain between admission and discharge) continue to show improvement. However, changes over time in the mix of IRF patients make it difficult to draw definitive conclusions about quality trends.

Our projected 2009 aggregate Medicare margin is 4.5 percent, down from 11.7 percent in 2007. The projected decrease in the margin is the result of a MMSEA provision that eliminated the IRF payment update for the second half of 2008 and all of 2009. The margin projection for 2009 does not assume increased cost control efforts by IRFs in response to the MMSEA's elimination of the IRF update or the decline in discharges in recent years. To the extent that IRFs restrain their cost growth in response to these changes, the projected 2009 margin would be higher than we have estimated.

Based on our analysis of payment adequacy, the Commission recommends eliminating the update to payment rates for inpatient rehabilitation services for fiscal year 2010. We will closely monitor indicators within our update framework and will reassess our recommendation for the IRF payment update in the next fiscal year, as we do for all sectors.

Long-term care hospital services

Long-term care hospitals (LTCHs) furnish care to patients with clinically complex problems who need hospital-level care for relatively extended periods (average length of stay for Medicare patients must be greater than 25 days). Medicare is the dominant payer for LTCH services, accounting for about 70 percent of LTCH discharges. This sector has been very dynamic and concerns about rapid growth, geographic concentration, and the appropriateness and necessity of admissions have spurred two actions. First, CMS imposed the 25 percent rule, under which Medicare generally pays less if more than a specified percentage of a hospital-within-hospital's (HWH's) or satellite LTCH's patients is referred from its host hospital. Second, the MMSEA imposed a three-year limited moratorium on new LTCHs and new beds in existing LTCHs.

Our assessment of payment adequacy is informed by these actions. Growth in the number of LTCHs has remained relatively flat between 2005 and 2007 and the number of HWHs has fallen an average of 2 percent per year as the 25 percent rule takes effect. Beneficiaries' use of services suggests that access has not been a problem. We found that LTCH use per FFS beneficiary increased slightly between 2005 and 2007. The evidence on quality is mostly positive. Readmission rates for the top 15 LTCH diagnoses have been stable or declining. Rates of death in the LTCH and death within 30 days of discharge also have been declining for most diagnoses. LTCH patients appear

to have experienced fewer infections due to medical care and fewer cases of postoperative sepsis. However, patients appear to have experienced more decubitus ulcers and more cases of postoperative pulmonary embolisms and deep vein thrombosis.

In the current economy-wide credit crisis, LTCHs' access to capital tells us little about Medicare payment adequacy, and the three-year moratorium on new beds and facilities imposed by the MMSEA will reduce the need for capital in any case.

LTCHs' Medicare margin for 2007 is 4.7 percent and we estimate LTCHs' aggregate Medicare margin will be 0.5 percent in 2009.

On balance, our indicators of payment adequacy are positive and the Commission recommends that the Secretary update payment rates for LTCH services by the market basket index, less the Commission's adjustment of 1.3 percent, designed to provide an incentive to control costs while maintaining quality. Under the current forecast of the rehabilitation, psychiatric, and LTCH market basket, the Commission's recommendation would update the LTCH payment rates by about 1.6 percent in 2010.

The Medicare Advantage program

The MA program provides Medicare beneficiaries with an alternative to the FFS Medicare program. It enables them to choose a private plan to provide their health care. Those private plans can use alternative delivery systems and care management techniques, and—if paid appropriately—they have the incentive to innovate. The Commission supports private plans in the Medicare program but has concerns about the current MA payment system.

In our analyses of data on enrollment, availability, payments, benefits, and quality, presented in Chapter 3, we find:

- About 22 percent of Medicare beneficiaries were enrolled in MA plans in 2008 and all beneficiaries have access to an MA plan in 2009.
- In 2009, payments to MA plans continue to exceed what Medicare would spend for similar beneficiaries in FFS. MA payments per enrollee are projected to be 114 percent of comparable FFS spending for 2009.
- In aggregate, the MA program continues to be more costly than the traditional program. Plan bids for the

traditional Medicare benefit package are 102 percent of FFS in 2009. As an exception, HMOs continue to bid below FFS, bidding 98 percent of FFS.

- Plans provide enhanced benefits to enrollees, but except for HMOs, those benefits are financed entirely by the Medicare program and other beneficiaries, and at a high cost. For example, each dollar's worth of enhanced benefits in private FFS plans costs the Medicare program over three dollars.
- Quality is not uniform among MA plans or plan types. High-quality plans tend to be established HMOs; more recent plans have lower rankings on many measures.

We are concerned that the average MA bid for Medicare Part A and Part B services is above average FFS spending and still increasing. This means that, in aggregate, enhanced benefits are funded by the taxpayers and all beneficiaries (whether they belong to MA plans or not), not by plan cost efficiencies. In addition, a portion of the value of the enhanced benefits funds plan administration and profits, not direct health care services for beneficiaries. Paying a plan more than FFS spending for delivering the same services is not an efficient use of Medicare funds in the absence of evidence that such payments result in better quality compared to FFS.

To be clear, even though we use the FFS Medicare spending level as a measure of parity for the MA program, this should not be taken as a conclusion that the Commission believes that FFS Medicare is an efficient delivery system in most markets. In fact, much of our work is devoted to identifying inefficiencies in FFS Medicare and suggesting improvements in the program.

High MA payments allow plans to be less cost efficient than they would be if they faced the financial pressure of payments closer to Medicare FFS levels. As the Commission has stated in the past, organizations are more likely to be efficient when they face financial pressure. The Medicare program needs to exert consistent financial pressure on the FFS and MA programs, coupled with meaningful quality measurement and pay-for-performance programs, to increase the value it receives for the dollars it spends. The Commission has made recommendations in previous years to further these aims in the MA program, and those recommendations are reiterated in Chapter 3.

A status report on Part D for 2009

Part D uses competing private plans to deliver outpatient prescription drug benefits.

Each year, sponsors submit plan bids for providing Part D benefits. Part D sponsors may change plans' benefit designs, formularies, and cost-sharing requirements. Policymakers need to stay informed about changes to ensure that Part D meets the broader goal of giving beneficiaries access to appropriate drug therapies. Year-to-year changes in bids and enrollee premiums give policymakers information about how well sponsors are managing drug benefit costs for beneficiaries and for taxpayers.

In Chapter 4 we describe Part D enrollment in 2008 and plan offerings for 2009. The chapter also reports on one aspect of Part D intended to promote quality: medication therapy management programs. We find:

- Ninety percent of Medicare beneficiaries received some form of drug coverage in 2008. Fifty-eight percent of all Medicare beneficiaries enrolled in Part D plans; 32 percent had drug coverage at least as generous as Part D through employer-sponsored plans or other sources. Twenty-one percent of Medicare beneficiaries received Part D's extra help with premiums and cost sharing (called the low-income subsidy or LIS). An estimated 6 percent of beneficiaries (about 2.6 million) were eligible for the LIS but were not enrolled.
- In 2009, the number of stand-alone prescription drug plan (PDP) options declined by 7 percent, but beneficiaries can still choose among a median of 49 PDPs. Sponsors are offering 6 percent more Medicare Advantage–Prescription Drug plans (MA–PDs) than in 2008.
- For 2009, Part D premiums are significantly higher than in 2008. If enrollees stayed in the same plan, they saw premiums rise by an average of \$6 (24 percent) above 2008 levels to nearly \$31 per month.
- For 2009, we estimate that more than 80 percent of enrollees are in plans that use one generic tier and separate tiers for preferred and nonpreferred brand-name drugs in their formulary.
- Cost sharing tended to rise among PDPs for 2009. Copays for the median enrollee in a PDP rose to \$7 per 30-day supply of a generic drug, \$38

for a preferred brand-name drug, and \$75 for a nonpreferred brand. MA–PD cost sharing was more likely to remain at 2008 levels, with the exception of increased coinsurance for specialty-tier drugs.

- For 2009, fewer premium-free PDPs will be available to enrollees who receive the LIS: 308 plans qualified, compared with 495 in 2008. CMS estimated that it needed to reassign about 1.6 million LIS enrollees to new plans for individuals to avoid paying some of the premium. Another 0.6 million LIS enrollees previously picked a plan on their own and were responsible for switching themselves into a qualifying plan for 2009 or begin paying part of the premium.

We also explored medication therapy management programs (MTMPs) in Part D. All PDPs and MA–PDs are required to offer MTMPs to enrollees with several chronic conditions who take multiple drugs and are expected to average at least \$4,000 per year in drug costs. CMS does not provide much guidance on designing or implementing these programs.

MTMPs differ in the number and type of chronic conditions and prescriptions a beneficiary must have to be eligible, the kinds of interventions provided to enrollees, and the outcomes sponsors measure. A small percentage of beneficiaries are enrolled in MTMPs, and we do not have sufficient data to determine whether the programs are increasing the quality of pharmaceutical care to them.

More standardized collection and reporting of outcome measures could be used to determine whether programs are meeting their goals of improving the quality of pharmaceutical care, what patient populations benefit from these programs, and what interventions are most successful. CMS has initiated research that has the potential to answer many important questions about Part D medication therapy management. The Commission will closely follow the results, but we are unlikely to know the results from this study for several years.

Public reporting of physicians' financial relationships

Drug and device manufacturers have extensive financial relationships with physicians, academic medical centers, professional organizations, and other health care entities. These financial ties have led to many advances in medical research, technology, and patient care. However, they may also create conflicts between the commercial interests of manufacturers and physicians' obligation to do what is

best for their patients. We examine this issue in Chapter 5. The line between appropriate and inappropriate interactions may not always be clear, but there is no doubt that they should be transparent. Transparency does not imply that all—or even most—of these financial ties undermine physician–patient relationships.

Requiring manufacturers to publicly report their financial relationships with physicians and other health care entities should have several important benefits. It should discourage physicians from accepting gifts or payments that violate professional guidelines. It would also help CMS and other payers determine whether physicians’ practice patterns are influenced by their interactions with industry. Therefore, the Commission recommends that the Congress mandate the reporting of comprehensive information on industry relationships with physicians and other health care entities and that the Secretary post this information on a public, searchable website.

In 2005, pharmaceutical manufacturers provided free samples with a retail value of more than \$18 billion to physicians and other providers. While free samples may benefit the patient, there are concerns they may influence physicians’ prescribing decisions and lead physicians and patients to rely on more expensive drugs when less expensive medications might be equally effective. More information about the distribution of samples would enable researchers to study their impact on prescribing patterns and overall drug costs and could help payers and health plans target their counterdetailing programs. Therefore, the Commission recommends that the Congress require pharmaceutical manufacturers to report information about drug samples and their recipients. The Secretary would make this information available for research and legitimate business purposes through data use agreements.

In addition to financial relationships with drug and device manufacturers, physicians may also have financial ties to health care facilities. There has been rapid growth in physician investment in hospitals and ambulatory surgical centers, for example. Although physician ownership of facilities may improve access and convenience for patients, evidence suggests that physician-owned hospitals are associated with a higher volume of services within a market. The Commission recommends that the Secretary collect information on physician investment in hospitals and other health care providers and make it available in a public database, which would facilitate research on how physician ownership might influence patient referrals, quality of care, volume, and overall spending.

Physicians have a wide variety of financial relationships with hospitals besides investment interests, yet we know very little about the prevalence of these arrangements. If information on these relationships were publicly available, payers and researchers could use it to examine their impact on referral patterns, volume, quality, and cost. Through the Disclosure of Financial Relationships Report, CMS plans to collect detailed data from a sample of hospitals on their ownership, investment, and compensation arrangements with physicians. We recommend that the Secretary use data from this survey to report to the Congress on the prevalence of various arrangements. This report could help guide future decisions on what types of physician–hospital relationships—in addition to ownership—should be publicly reported. The goal of hospital disclosure is to gain a better understanding of how physician–hospital relationships can affect the cost and quality of care.

Reforming Medicare’s hospice benefit

The Medicare hospice benefit was established in 1983 to allow beneficiaries to choose palliative care and other benefits consistent with their personal preferences for end-of-life care as an alternative to conventional medical interventions. The creation of the Medicare hospice benefit was more than just a change to the Medicare benefits package; it was a statement recognizing and respecting social values and patient preferences at the end of life. Since Medicare began covering hospice care, the share of beneficiaries electing hospice has grown as there has been increased recognition that hospice can appropriately care for patients with noncancer diagnoses.

Along with this expansion, hospice stays have grown longer, with especially rapid growth occurring since 2000. Medicare hospice spending also rose rapidly, more than tripling between 2000 and 2007, when it reached \$10 billion. Over this time, the number of Medicare-participating hospices increased by more than 1,000 providers, nearly all of which were for-profit entities. The Commission’s analysis of the hospice benefit in our June 2008 report shows that Medicare’s hospice payment system contains incentives that make very long stays in hospice profitable for the provider, which may have led to inappropriate utilization of the benefit among some hospices. We also find that the benefit lacks adequate administrative and other controls to check the incentives for long stays in hospice and that CMS lacks data vital to the effective management of the benefit.

To address these problems, in Chapter 6 we propose recommendations to reform the payment system, to ensure greater accountability within the hospice benefit, and to improve data collection and accuracy. In making these recommendations, the Commission recognizes the importance of the hospice benefit and its substantial contribution to end-of-life care for beneficiaries. The goal of these recommendations is to strengthen the hospice payment system and not discourage enrollment in hospice, while deterring program abuse. Thus, the Commission's recommendations are intended to encourage hospices to admit patients at a point in their terminal disease that provides the most benefit for the patient. The Commission recommends:

- A conceptual model for a revised hospice payment system under which per diem payments begin at a relatively higher rate, decline as length of stay increases, and provide an additional payment at the end of the episode. This model would better reflect hospices' level of effort in providing care throughout the course of a hospice episode and promote stays of a length consistent with hospice as an end-of-life benefit. Changes would be made in a budget-neutral manner in the first year.
- Greater physician engagement in the process of certifying and recertifying patients' eligibility for the Medicare hospice benefit and more oversight of hospices' compliance with Medicare eligibility criteria. These measures are directed at hospices that tend to enroll very-long-stay patients. This recommendation would help ensure that hospice is used to provide the most appropriate care for eligible patients. In addition, potential conflicts of interest among hospices and other providers caring for hospice patients should be addressed.
- Hospice claims should contain information on the kind and duration of visits provided to a patient to better understand care provided and to differentiate patterns of care among different types of patients and hospices. Hospice cost reports should include additional information on revenues and be subject to additional reviews to ensure they serve as accurate fiscal documents. ■

CHAPTER

1

**Context for Medicare
payment policy**

Context for Medicare payment policy

Chapter summary

Medicare and other purchasers of health care in our nation face enormous challenges for the future. As health care costs increase for individuals and private and public payers, quality frequently falls short of patients' needs. The Commission has recommended a number of measures to increase the accountability and value of care, such as having pay for performance, measuring resource use, and comparing the effectiveness of medical treatments. The increasing spending and variation in the use and quality of care in the current system suggest that opportunities exist for reducing waste and improving quality for beneficiaries, but realizing them requires addressing the myriad of factors that drive the current health care system.

As is true for other purchasers of health care, Medicare's spending has been growing much faster than the economy. Our historically substantial national income, the availability of newer medical technologies, and the cost-increasing effects of health insurance are thought to account for much of this long-term growth, and some of those forces will likely push future spending higher. Medicare will

In this chapter

- Trends in Medicare and the U.S. health care system
- Meeting the challenges of Medicare reform

have the additional challenge of higher enrollment associated with retiring baby boomers, which will affect program spending as well as the demand for federal resources for other programs that benefit the elderly, such as Social Security and Medicaid. These factors will lead Medicare to require an unprecedented share of our gross domestic product.

Because of these forces, the Medicare trustees and others warn of a serious mismatch between the benefits and payments the program currently provides and the financial resources available for the future. If Medicare benefits and payment systems remain as they are today, the trustees note that over time the program will require major new sources of financing. Projected levels of spending could also impose a significant financial liability on taxpayers. Medicare beneficiaries, who must pay premiums and cost sharing, will also be affected by rising expenditures. Analysts across the political spectrum have raised concerns that the current programs may become too heavy a fiscal burden and squeeze funding for other federal priorities (Aaron et al. 2008, Antos et al. 2008). No single solution is available to tackle these challenges. Under any scenario, however, a solution for Medicare may require a sizable slowdown in the growth rate of spending on health care and may also require a substantial increase in taxes as a share of our nation's economy (CBO 2005).

Addressing issues of this magnitude will require an extended effort, and analysts have urged policymakers to take immediate action to address Medicare's finances (Boards of Trustees 2008). They argue that major changes to these programs should begin soon to allow beneficiaries, providers, and taxpayers time to adapt to major alterations. For example, expenditures for the Hospital Insurance trust fund, which funds inpatient stays and other post-acute care, exceeded its annual income from taxes in 2008. Part A has remained solvent due to existing trust fund balances and interest income. Delaying actions would constrain the options for addressing Medicare's problems. Many changes, such as reconfiguring the delivery

system to slow cost growth and increase quality, will take time to implement. As cost inflation continues to outstrip revenue and the retirement of the baby boom generation draws closer, the time for phasing in major changes is growing shorter. ■

Introduction

Medicare fills a critical role in our society—ensuring that the elderly and disabled have access to medically necessary care and that they have some financial protection against health costs. Medicare is credited with doubling the share of seniors who have health insurance and reducing the out-of-pocket burden beneficiaries faced before its enactment (Moon 2000). By providing a stable source of funding for a population with significant health care needs, the program plays a major role in the U.S. health care system. For the sake of its beneficiaries, we must preserve the beneficial aspects of the Medicare program. However, Medicare’s costs will grow substantially in future years (Figure 1-1), and many analysts have noted that Medicare lags in its efficiency and the quality of care it offers (Fisher et al. 2003a, Fisher et al. 2003b).

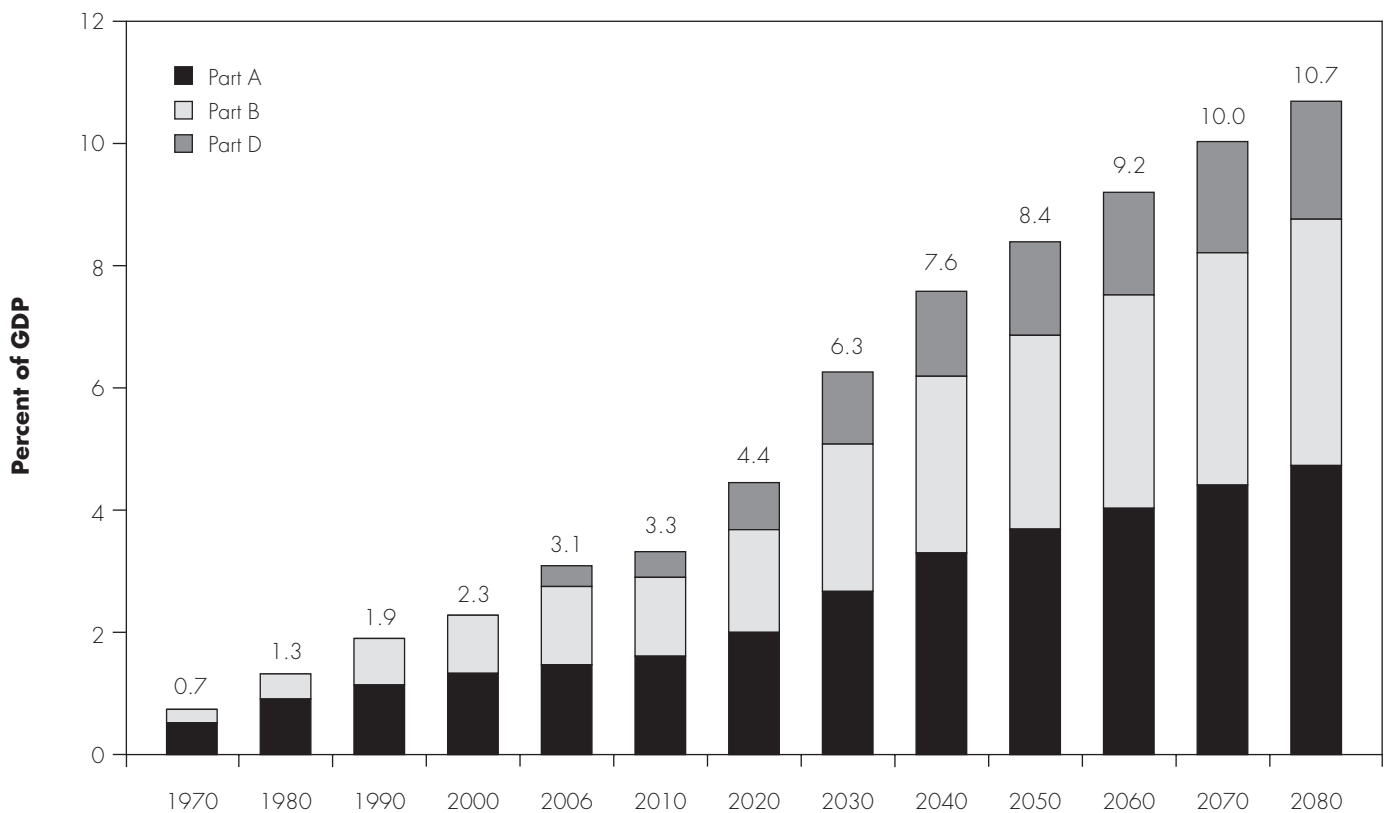
Eligibility and financing for Medicare

Medicare shifts much of the financial liability for health care spending from the elderly to taxpayers through a hybrid system with four major parts—A, B, C, and D—that have different eligibility requirements and different financing mechanisms.¹

Part A, the Hospital Insurance (HI) program, covers stays in hospitals and skilled nursing facilities, hospice care, and some home health care. Policymakers designed Part A as a compulsory social insurance program tied to employment covered by Social Security and financed through a dedicated 2.9 percent payroll tax. Part A essentially finances health care expenses through payroll taxes on current workers, with the promise of future benefits to those workers. Beneficiaries also pay deductibles and co-pays for some Part A services.

FIGURE 1-1

Trustees project Medicare spending to increase as a share of GDP



Note: GDP (gross domestic product). These projections are based on the trustees’ intermediate set of assumptions.

Source: 2008 annual report of the Boards of Trustees of the Medicare trust funds.

Part B, which covers outpatient and physician services, and Part D, which includes prescription drugs, are separate benefits included in the Supplementary Medical Insurance (SMI) trust fund. Part B was established in 1966 as part of the original Medicare Act, and Part D began operation in 2006 after passage of the Medicare Prescription Drug, Improvement, and Modernization Act of 2003. Financing the expenditures for the two parts currently requires about 12.5 percent of all personal and corporate income tax revenue.

Part B is voluntary, but more than 90 percent of eligible beneficiaries are enrolled. Beneficiary premiums finance about 25 percent of Part B program spending, and general revenues finance the remainder. Beneficiaries also pay cost sharing for a portion of their services, described below.

Like Part B, the Medicare drug benefit is voluntary and is funded through a mixture of beneficiary premiums and a general fund contribution. Premiums paid by beneficiaries equal 9 percent of Part D federal expenditures, and the general fund pays for about 77 percent of federal expenditures.² About 14 percent is financed by payments from states to offset some of the costs of Medicaid-eligible beneficiaries who receive Part D benefits. Beneficiaries also pay copays and deductibles in Part D.

Beneficiaries may opt to receive their benefits through private health plans that have contracted with Medicare under Part C, also known as Medicare Advantage. Payments to these plans are funded through the HI and SMI trust funds. These plans generally provide Part A and Part B benefits, and some also offer a drug benefit under Part D.

Most beneficiaries become eligible for Medicare at age 65, but there are two exceptions. Individuals who qualify for disability payments from the Social Security disability program are eligible for Medicare after they complete a 24-month waiting period, and individuals with end-stage renal disease are eligible regardless of age.

Benefit design and cost sharing

Medicare imposes cost-sharing requirements on beneficiaries at the point where the patient receives most medical services. Medicare's original benefit package left certain services uncovered; for example, until 2006 Medicare did not cover most outpatient prescription drugs. These factors led most Medicare beneficiaries to obtain

supplemental coverage, primarily through individual medigap policies or employer-based retiree coverage.

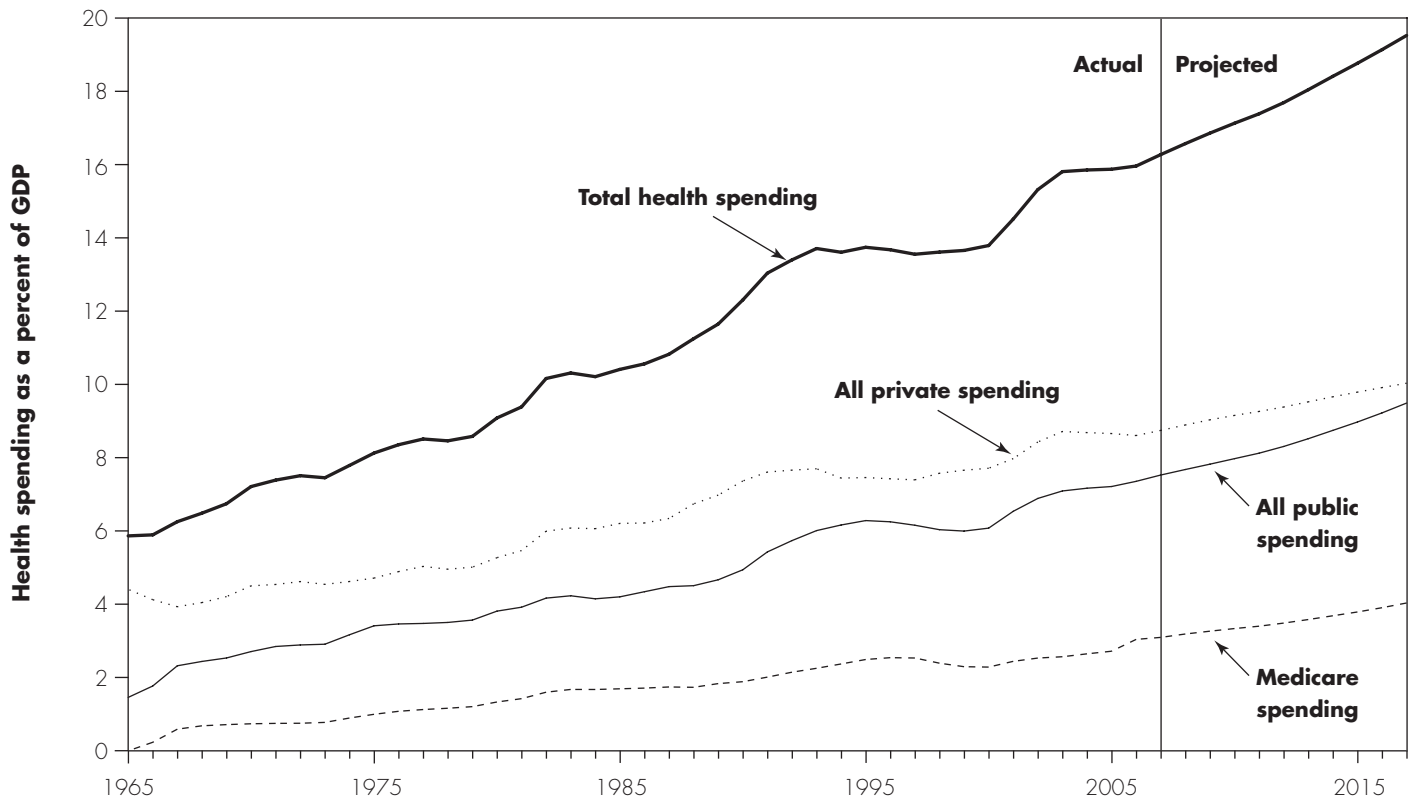
The proportion of spending for Medicare-covered services paid through cost sharing has remained fairly stable. Part A cost-sharing requirements generally increased at the same rate as payment updates for Part A services. Cost sharing for many Part B services is proportional to allowed charges (typically 20 percent coinsurance). Prior to 2005 lawmakers rarely increased Part B's annual deductible. However, in 2005 they raised it from \$100 to \$110, and it now increases at the same rate as growth in Part B spending per person (in 2009, the deductible is \$135).

Most Medicare beneficiaries have supplemental coverage to fill in some or all of Medicare's gaps in cost sharing. In 2005, about 89 percent of Medicare beneficiaries obtained supplemental coverage through former employers (33 percent), medigap policies (25 percent), Medicare Advantage plans (13 percent), Medicaid (16 percent), or other programs (1 percent) (MedPAC 2008a). Supplemental coverage often provides enrollees with better predictability of their out-of-pocket spending. In return for paying an annual premium, beneficiaries can receive supplemental coverage, such as medigap policies, that reduces their cost sharing to zero or nearly zero from the time they begin using health services each year. Insurance for Medicare's coverage gaps creates spending and access issues, which are explored later in this chapter.

Medicaid provides supplemental coverage for lower income Medicare beneficiaries. Policymakers created the Medicaid program at the same time as Medicare to address the health care needs of low-income individuals. The federal government, along with the states, assumes nearly all the cost of health care for beneficiaries who meet means and asset tests, and the federal share is financed with general revenues (like Part B). Medicare and Medicaid serving individuals eligible for both programs (called dual eligibles) creates administrative challenges. Federal and state policy goals for the programs sometimes conflict, and current policies toward dual eligibles create incentives to shift costs between payers, can hinder efforts to improve quality and coordinate care, and may reduce access to care (MedPAC 2004a). Medicaid has become the primary public payer for long-term care (Moore and Smith 2005). The intersection of the two programs' payment policies has created particular problems related to shifting costs among payers for beneficiaries' post-acute and long-term care needs.

**FIGURE
1-2**

**Health care spending has grown more rapidly than GDP,
with public financing making up nearly half of all funding**



Note: GDP (gross domestic product). Total health spending is the sum of all private and public spending. Medicare spending is one component of all public spending.

Source: CMS, Office of the Actuary, National Health Expenditure Accounts, 2008.

Trends in Medicare and the U.S. health care system

Medicare spending is projected to be \$461 billion in 2008 (Keehan et al. 2008). Even so, it is just one part of an expansive and growing U.S. health care system that includes a broad array of private and public purchasers, insurers, providers, manufacturers, and suppliers.

Combined expenditures on health care services in the United States totaled nearly \$2.1 trillion in 2006, or 16 percent of our economy (Catlin et al. 2008) (Figure 1-2).

As is true for other purchasers of health care, Medicare's spending is growing much faster than the economy. Projections of continued rapid growth in spending in the health care system combined with retirement of the baby boom population foreshadow accelerated growth in

Medicare outlays in 2010 and beyond. At the same time, the Medicare program spends widely different amounts for beneficiaries across geographic regions, much of which can be attributed to differences in practice patterns rather than to differences in underlying health status. There are also wide disparities in the quality of care beneficiaries receive, with no relationship or a negative relationship between quality of care and spending.

The distribution of spending among health care users varies significantly. For example, the most costly 1 percent of beneficiaries accounted for 15.5 percent of Medicare expenditures in 2004; similarly, the 5 percent of beneficiaries who died in 2004 accounted for more than 20 percent of Medicare spending that year (Riley 2007). However, recent analysis of long-term spending trends per beneficiary has found that the concentration of spending for Medicare beneficiaries has fallen (Riley 2007). In

1975, the top 5 percent of beneficiaries accounted for 54 percent of spending, while in 2002 they accounted for 43 percent of spending. The trend suggests higher treatment intensities for a broader range of patients. The mix of spending among services has also changed over time for all beneficiaries, not just the most costly. For example, in 1975 hospital services accounted for about 69 percent of the annual expenditures for a beneficiary. In 2004, hospital expenditures fell to 43 percent of annual spending, while the share for physician and outpatient services increased. The rise in spending for less costly beneficiaries and the growth in nonhospital spending suggest that improving the efficiency of health care delivery will require interventions that consider multiple categories of services and consider the changing concentration of beneficiary spending. The high level of spending for beneficiaries in their last year of life also suggests that opportunities exist to improve efficiency at this juncture through better coordination of care across settings.

Private versus public financing in the U.S. health care system

Currently, public financing—federal, state, and local programs—makes up about 46 percent of all U.S. health care spending, with private sources providing the rest. The public share will rise by a few percentage points to nearly 49 percent by 2017 (Keehan et al. 2008). Medicare accounted for 19 percent of health care spending in 2006. Medicaid was the next largest public program, accounting for 15 percent, and private health insurance (including employer-sponsored plans) equaled about 34 percent. In 2004, employers, including private sector and government employers, were the largest source of health insurance, covering about 63 percent of individuals residing in the United States (Fronstin 2007).

Because of the tax preference given to employer-sponsored insurance, public financing plays a large role in coverage even for individuals with private insurance (Helms 2005).³ For 2009, the exemption of employer-paid health insurance from payroll and individual income taxes reduced federal revenues by about \$160 billion (OMB 2008). If these tax expenditures were included in the health accounts as public spending, the share of health care financed by the public would have exceeded half of all health care spending in 2003 (Selden and Sing 2008). However, excluding these tax expenditures from public spending accounts is consistent with the exclusions from national accounts of a wide variety of tax policies affecting decisions about the mix of goods and services the country produces and consumes.⁴

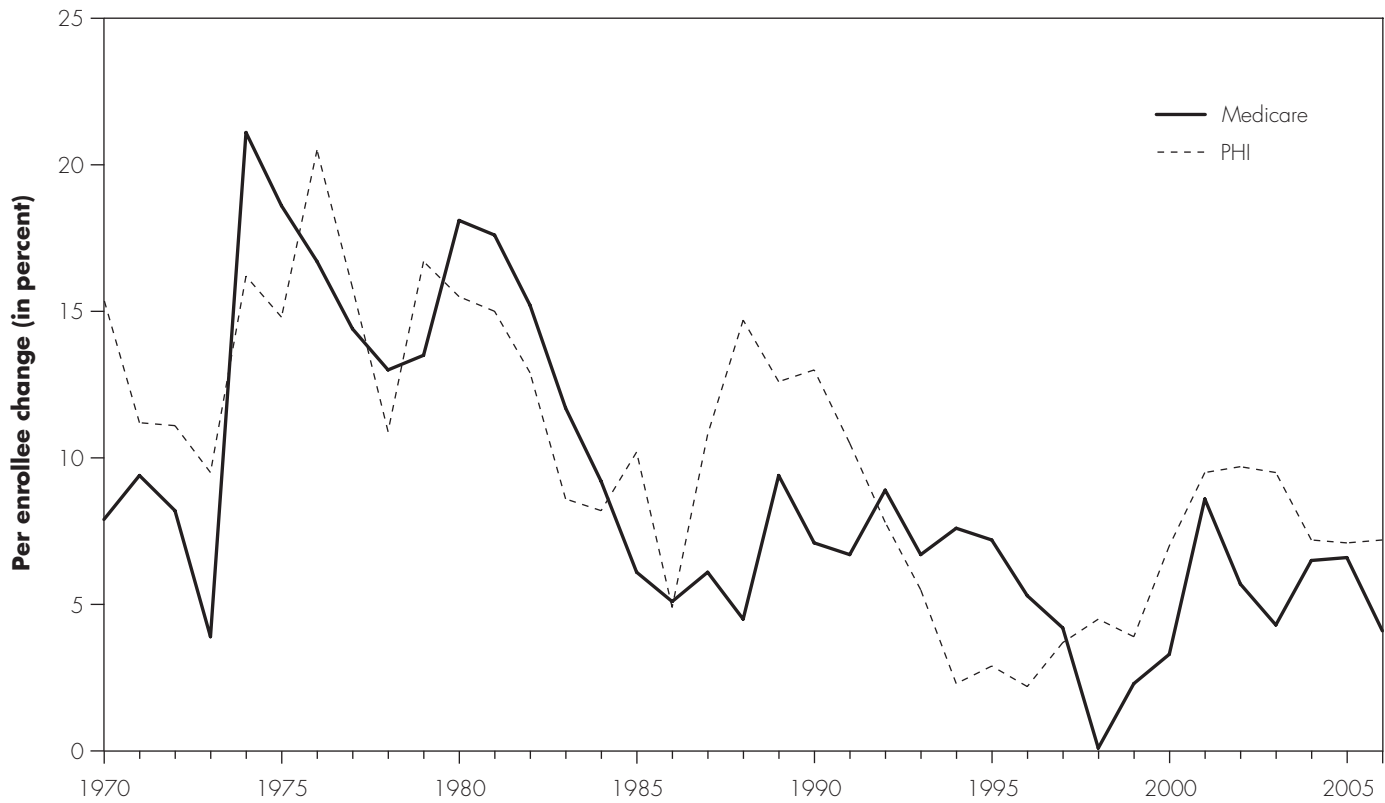
Rapid growth in health care spending among all payers

For each of the past several decades, the United States has spent an expanding share of its resources on health care. In 1960, for example, national health expenditures made up about 5 percent of the gross domestic product (GDP). That share grew to 16 percent by 2005, and CMS projects that it will make up 19.5 percent by 2017 (Figure 1-2, p. 9) (Keehan et al. 2008). All payers in the U.S. health care system—public and private—are facing similar upward pressures on spending.

Since the end of World War II, health care spending has exceeded per capita growth in the nation's economy by more than 2 percentage points (2004 Technical Review Panel). Recent analysis by the Congressional Budget Office (CBO) found that Medicare expenditures per capita had exceeded GDP growth by 2.4 percent per year in 1975–2005 (CBO 2007). The consequence of this excess growth is that health care spending has consumed a growing share of the nation's income.

While private and public programs differ in their coverage and financing, over the long term their rates of per capita growth have been similar (Pauly 2003). When comparing spending for benefits that private insurance and Medicare have in common, Medicare's spending per enrollee grew at a rate about 1 percentage point per year lower than that for private insurance from 1970 to 2006. Differences have been more pronounced since 1985, when Medicare began introducing the prospective payment system for hospital inpatient services (Levit et al. 2004). Some analysts believe that, since the mid-1980s, Medicare, with its larger purchasing power, has had greater success than private payers at containing cost growth (Boccutti and Moon 2003). Others maintain that benefits offered by private insurers have expanded as cost-sharing requirements declined over the entire period and enrollment in managed care plans grew during the 1990s. The comparison is thus problematic, because Medicare's benefits changed little over the same period (Antos and King 2003). However, as Figure 1-3 indicates, both sectors have experienced substantial rates of growth per enrollee.

Although often disputed by economists, many analysts contend that certain health care providers are able to shift costs by charging some payers higher prices to compensate for changes in the administered prices of other payers, thus resulting in higher rates of cost growth for some payers than for others. Providers have the incentive to maximize prices from payers irrespective of Medicare rates, and they

**FIGURE
1-3****Changes in spending per enrollee for Medicare and private health insurance**

Note: PHI (private health insurance). Chart compares services covered by Medicare and PHI, including hospital services, physician and clinical services, and durable medical products.

Source: CMS, Office of the Actuary, National Health Statistics Group, 2008.

can act on this incentive if they have sufficient market power to negotiate higher prices. Some payers may be willing to tolerate higher price increases than other payers and pass through higher costs to the purchaser in the form of premiums. Insurers may be able to pass along costs due to lack of pressure from the purchaser, such as employers providing health insurance for their employees (Nichols et al. 2004). The counter-argument made by many hospital and other health industry executives is that limits on Medicare and Medicaid payment rates lead to higher prices for private payers (Ginsburg 2003). However, recent analysis by the Commission has found that hospitals with low or negative Medicare margins have relatively robust private payer margins (MedPAC 2008b). Rather than reflecting a cost shift from Medicare to private payers, this finding suggests that some hospitals are less aggressive in controlling costs because high costs can be absorbed by

high private sector payments. All things being equal in this scenario, Medicare margins decrease. Increasing Medicare payments is not a long-term solution to the problem of rising private insurance premiums and rising health care costs. In the end, affordable health care will require shared incentives across payers for health care providers to reduce their rates of cost growth and volume growth.

Medicare's administrative costs are relatively small compared with the commonly cited private sector benchmarks for administrative expenditures, but differences between the two sectors may explain some of the disparity. In 2008, about \$5 billion was spent to administer Medicare, equal to about 1 percent of the amount paid in benefits (OMB 2008). This level is significantly lower than the 15 percent to 25 percent share of benefits paid commonly cited for private insurers (Gluck and Sorian 2004, Matthews 2006).

Because the administrative operations of Medicare and the private sector differ significantly, it is difficult to determine which program administers health care benefits more efficiently. For example, the private sector has a greater need to market its offerings. Conversely, Medicare may not have to market itself to attract beneficiaries, but it does have an obligation to educate beneficiaries about their obligations and options under the benefit. On the other hand, there are some costs, such as taxes and the need to earn profits, that are clearly not borne by CMS or Medicare. One estimate suggests that the gap between private insurance and Medicare narrows significantly after correcting for some differences (Matthews 2006).

Any analysis that considers administrative expenses must also consider the efficiency and effectiveness of the benefit expenditures they oversee. Administrative activities contribute to the value of health benefits in a variety of ways, but it is not always clear how Medicare and the private sector compare under various metrics. For example, CMS estimates that about \$9.8 billion in erroneous payments were made in the fee-for-service program in 2007, a figure more than double what CMS spent for claims processing and review activities (CMS 2008a). In Medicare Advantage, CMS estimates that erroneous payments equaled \$6.8 billion in 2006, or approximately 10.6 percent of payments. CMS has not released an erroneous payment rate for Part D. Comparable error rates for private insurers are not available. The significant size of Medicare's erroneous payments suggests that the program's low administrative costs may come at a price.

Higher spending in the United States

Health care spending in the United States is far higher than in other countries—about \$6,714 per person in 2006, or more than twice the median of member countries of the Organisation for Economic Co-operation and Development (OECD 2008).⁵ The United States spends significantly more than other high-spending OECD countries, with the next highest spending nation spending 33 percent less per capita. A variety of factors account for the higher growth in spending in the United States.

One study found that the United States has higher spending even after adjusting for differences in wealth and disease prevalence (McKinsey Global Institute 2007). The analysis estimated how much the United States would have spent based on the statistical relationship between

health spending and per capita income in industrialized countries.⁶

It found that the United States spent \$477 billion, or \$1,645 per capita more, even after accounting for the United States' higher per capita income. The increased incidence in disease accounted for only \$25 billion of the difference. The remainder was attributable to higher utilization, higher input costs for labor and capital, and higher administrative and operational costs. The analysis suggests that the inefficiencies that increase costs are spread throughout the system, and any reform will require multiple strategies.

Other estimates have suggested that the rates of diagnosis and treatment for many common conditions ("rate of treated disease") are much higher in the United States (Thorpe et al. 2007). For example, the rate of chronic lung disease among individuals age 50 or older in the United States is almost double that among the same population in certain European countries. Among those with this diagnosis, almost twice as many individuals in the United States reported receiving medication associated with the condition as did people in Europe. Thorpe and colleagues concluded that if the United States had the same rate of treated disease for the studied conditions as the selected European countries, aggregate expenditures in the United States would have been 13 percent to 19 percent lower in 2003.

The health care systems of other countries may not be preferable to ours. A recent survey of patients in the United States and six other countries found that patient satisfaction and access to care varied, and no country clearly outperformed the others (Schoen et al. 2007). Each health care system reflects the social, economic, and political circumstances of its country, and as a result each system has a mixture of strengths and weaknesses. Comparison with other countries may provide useful information for benchmarking performance, but the broad variations in performance imply that no one country's system should serve as an exemplar for others (McGlynn 2004). However, it is striking how the United States leads all other countries in health spending but in many instances has worse performance in quality and efficiency relative to other countries that spend significantly less (Schoen et al. 2008).

Accounting for the factors driving growth

Many factors account for the rise in health care spending. Examining these disparate causes presents many challenges, as the nation's health status and the health care delivery system are constantly evolving. Commonly cited drivers of growth in health care spending include the rapid development and diffusion of new technology, the nation's wealth, the impact of health insurance, and rising prices. Changing demographics, the nation's health status, and health industry consolidation are additional, though smaller, factors that also contribute to increased spending. The ranges of estimates presented in this section reflect the variations in scope, method, and objective of each study; they should be considered illustrative, and across factors they are not necessarily consistent.

Technology

Most analysts point to the rates of development and diffusion of new technologies as a primary driver of growth in health care spending (CBO 2008a). Many technologies reduce the invasiveness, serious side effects, discomfort, or recovery time associated with the therapies they replace, thereby lowering nonfinancial obstacles to beneficiaries as they decide whether to seek treatment. When procedures, drugs, or devices become available, a base of evidence may not exist to help providers decide how newer therapies compare with older or less expensive ones. In many cases, providers do not wait for evidence to become available before utilizing a new technology (Redburn and Walsh 2008). When providers recommend newer therapies that are covered by Medicare or other insurance, patients do not face the full cost of their care and may not be concerned about the comparative value of those therapies. Some medical technologies lead to savings by reducing lengths of hospital stays or avoiding hospitalizations, but most technologies tend to expand the demand for health care and increase spending. In some cases, providers use new technologies inappropriately or more broadly than intended. Most analysts attribute the majority of long-term growth in per capita spending to technology (CBO 2008a, Fuchs 2005, Newhouse 1992, 2000 Technical Review Panel).

The impact of new technology on spending is compounded under fee-for-service payment systems. Because these systems tie reimbursement to the volume of services provided, widespread use of new technologies can create opportunities for providers

to increase their volume and revenues. Many of the additional services may be beneficial, but fee-for-service payment encourages providers to use the technologies that result in higher volume and payment regardless of value. This practice can bolster an "arms race" mentality in which providers feel compelled to pursue the latest technologies to remain financially successful relative to their peers (Berenson et al. 2006). Under alternative systems, such as capitation or value-based approaches that tie payments to a measure of a procedure's clinical efficacy, the rewards for additional volume are diminished. Under these systems, providers have less financial incentive to pursue the volume opportunities associated with new technology.

Income

As a nation's standard of living grows, it is likely to spend more on health care (Hall and Jones 2007). As individuals become better off and their consumption increases, the incremental value of buying more commodities (e.g., another television or more clothing) falls. By contrast, the marginal value to them of an extended life span does not diminish as quickly. Similarly, the marginal value of procedures that are not life saving but that may improve the quality of life (e.g., joint replacements or cosmetic surgery) may increase relative to that of other goods. Estimates for the impact of rising incomes vary, with one synthesis suggesting that growth in income accounts for 5 percent to 20 percent of the long-term rise in health care costs (CBO 2008a).

Insurance

Research highlights the important role of health insurance in fueling growth in spending. Health insurance can drive up spending because it insulates beneficiaries from the full cost of their care. From 1960 to 2005, the share of health care costs paid out of pocket fell from about 47 percent to 12.5 percent (CMS 2008b). Lower out-of-pocket costs can contribute to the demand for health services and encourage the development of new technologies and additional treatments. CBO found that 5 percent to 20 percent of long-term growth in spending is due to insurance. However, one analysis found that Medicare had a pronounced effect on hospital spending (Finkelstein 2007). Finkelstein asserts that the broad increase in demand for hospital services that occurred after the start of Medicare led to greater incentives for hospitals to enter markets, purchase new equipment and facilities, and adopt new practice styles. Extrapolating from her Medicare

findings, she suggests that about half of the increase in per capita health spending between 1950 and 1990 could be attributable to the spread of health insurance. Other analysts have noted that small changes in assumptions behind Finkelstein's extrapolation to all health care spending would lead to much smaller effects (Ellis 2006). However, as noted earlier, CBO's estimate based on a literature review was much lower.

Some protection against high out-of-pocket spending is desirable, but such coverage may reduce beneficiaries' sensitivity to costs. Individuals with first dollar coverage—insurance policies with little or no deductible before an insurer will pay for services—tend to use more services than those with similar health status and no supplemental coverage. Although Medicare's basic cost-sharing structure has deductibles for both Part A and Part B, many beneficiaries have secondary insurance that pays some or all of the cost sharing. One estimate based on data from the mid-1990s suggests that Medicare spending ranges from 17 percent higher for those with employer coverage to 28 percent higher for those with medigap policies (Christensen and Shinogle 1997). Other analysts believe that, to the extent that supplemental coverage encourages beneficiaries to adhere to medical therapies that prevent hospitalizations or the use of other services, higher levels of Medicare spending may be more modest than that (Chandra et al. 2007). A counterargument to this contention is that many supplemental plans cover all or nearly all of Medicare's cost-sharing requirements—they do not cover medical services that have better evidence of preventing hospitalizations any more selectively than they cover services that tend to be used inappropriately. Another line of research suggests that the responsiveness of beneficiaries to cost sharing is varied, and the effects of supplemental coverage are more modest for individuals in poorer health (Remler and Atherly 2003).

Changes in health care prices

Change in price is another factor that increases health care spending. Measuring price changes in health care can be complex, because changes in quality and outcomes can be challenging to measure. For example, new technology may increase the costs of a laboratory test, but the new test may offer superior diagnostic information that was previously unavailable. Simply tracking the price change without factoring in changes in quality offers an incomplete picture. These concerns aside, a recent summary by CBO suggested that between 10 percent and 20 percent of long-

term growth in per capita spending was attributable to higher prices (CBO 2008a).

Prices play a critical role in the health care economy. For private sector providers, which deliver most health care in the United States, prices are a factor that they must weigh when deciding what services to provide and which populations to serve. As a result, prices can determine what markets providers enter, the medical technologies selected for development, and the medical specialties that physicians select. Prices that accurately reflect the value of care provided and do not offer windfall profits or severe deficits are critical to ensuring that health care markets provide the proper amount and mix of services.

The accuracy of prices is particularly important for Medicare, because providers may exploit inaccuracies to improve financial performance. For example, the Commission found that Medicare's system of hospital payment did not accurately reflect the costs of some patients (MedPAC 2005). By overpaying for certain patients, the system encouraged hospitals to focus on a select set of Medicare patients. The Commission recommended that CMS take action to address these inaccuracies, and CMS implemented major refinements in fiscal year 2008.

Pricing services below appropriate levels can also distort utilization. The Commission has concluded that Medicare primary care services—which rely heavily on cognitive activities such as patient evaluation and management—are undervalued and they risk being underprovided relative to procedurally based services (MedPAC 2008c). The relative difference in reimbursement can distort the supply of care. For example, the share of U.S. medical school graduates entering primary care residency programs has been steadily declining, and internal medicine residents are increasingly choosing to subspecialize rather than practice as generalists (Bodenheimer 2006). Given these trends, the Commission has made a number of recommendations to increase reimbursement for primary care, such as increasing payment for evaluation and management services, raising payments for primary care practitioners, and exploring the medical home concept.

Aging and demographics

Changes in demographics also affect Medicare spending, but they have a much smaller impact than is commonly assumed. Analysts attribute about 2 percent of the increase in health care spending between 1940 and 1990 to aging of

the population (CBO 2008a). The baby boom population, the first wave of which will become eligible for Medicare in 2010, is commonly mentioned as a critical element in the challenge to social insurance programs. Though the growth in the number of beneficiaries will increase in the coming decades, the impact of this growth will be less than other factors driving per beneficiary spending such as technology. In CBO's long-term models, the impact of a graying society will account for 27 percent to 35 percent of future growth in spending for Medicare and Medicaid (CBO 2008b). The remainder of growth will be rising per capita costs due to other factors, such as advanced technology, national wealth, and the use of health insurance.

Health status

Our nation's underlying health status and changes in clinical treatment thresholds also affect spending. Recent work by Thorpe and Howard suggests that, between 1987 and 2002, nearly all the growth in health care spending for Medicare beneficiaries could be attributed to spending for patients being treated for five or more conditions (Thorpe and Howard 2006). In 2002, about 50 percent of all Medicare beneficiaries were being treated for five or more conditions, compared with about 31 percent of beneficiaries in 1987. At the same time, a larger proportion of patients being treated for five or more conditions reported that they were in excellent or good health—60 percent in 2002 compared with 33 percent in 1987. The authors concluded that medical professionals are treating healthier patients, treatments are improving health outcomes, or both are occurring.

Industry consolidation

Recent years have also seen the consolidation of health care providers and health plans (Nichols et al. 2004). These consolidations may result in new efficiencies that lower costs, but they can also lead to lower quality and higher prices (Vogt and Town 2006). The concern is that the primary motivation for much of this consolidation is to capture more market share and to leverage this market share for more favorable payments. Similarly, insurers seek market share to push providers for lower rates. This consolidation has resulted in some markets being served by a few dominant plans and providers; depending on the characteristics of the local market, it can result in cooperation to achieve system improvements or an accommodating détente (Ginsburg and Lesser 2006). In markets where collaboration takes place, consolidation

may unify local delivery systems around common goals such as improving quality. However, markets with few plans and providers may lack sufficient competition to spur needed improvements in efficiency and innovation. Some analysts have found that providers do not compete on price and efficiency in many markets; instead, they compete to increase their market share of the most profitable business lines (Berenson et al. 2006). This situation can lead to an increase in the supply and volume of medical services, but this type of competition does not necessarily address quality or efficiency concerns.

The U.S. health care system is fragmented among many different types of providers, and consolidation could be beneficial if it reorganized the delivery system to make it more efficient. However, many current consolidation trends are not correcting the imbalances in the delivery system that increase costs. For example, consolidation driven by a desire to expand market share may not encourage hospitals and physicians to coordinate care to improve quality or reduce readmissions. Also, market-driven consolidation may not address imbalances in the type of care available. Research suggests that areas with higher rates of specialty care per person are associated with higher spending but not improved access, quality, health outcomes, or patient satisfaction (Fisher et al. 2003a, Fisher et al. 2003b, Kravet et al. 2008, Wennberg et al. 2006). Moreover, states with more primary care physicians per capita have better health outcomes and higher scores on performance measures (Baicker and Chandra 2004, Starfield et al. 2005). The Commission has recommended exploring forms of organization that would encourage collaboration between physicians and hospitals for care coordination and strengthen the role of primary care (MedPAC 2008c). These policies would address the fragmentation in the delivery system with the goal of improving quality and efficiency.

Is higher spending worth it?

Despite high levels of spending, the health care system has not produced commensurate increases in quality or outcomes. A surfeit of evidence suggests that much of the health care delivered has little beneficial value for patients (Fuchs 2004, New England Healthcare Institute 2008). Studies of regional differences in spending and utilization have found that areas with more spending do not have improved patient health or satisfaction (Fisher 2003a, Fisher 2003b). In addition, these studies indicate that variation also exists among different classes of services. For example, one analysis found that the geographic

variation in imaging services was greater than that for most other services (MedPAC 2003). The financial impact of the variation is substantial for all payers, and some have suggested that 25 percent or more of the care delivered in the United States health care system could be eliminated with no detrimental impact on health outcomes (McKinsey Global Institute 2007, Orszag 2008, PricewaterhouseCoopers 2008). In addition, the quality of care provided in the United States has been found to be deficient. A study by the RAND Corporation found that a national sample of patients received only about half of the care that would have been expected (McGlynn et al. 2003). All these findings indicate that the current system is inefficient and often inefficacious, and an opportunity exists to reduce growth in expenditures and increase the value of care provided.

Advances in medical technology have led, on average, to improvements in our health and gains in life expectancy. Recently, Cutler and colleagues concluded that, on average across all ages, increases in medical spending between 1960 and 2000 (attributed largely to advances in medical care) provided reasonably good value, with an average cost per life-year gained of \$19,900 (Cutler et al. 2006).

However, when focused on spending and life expectancy for individuals age 65 or older, the same research found that between the 1970s and 1990s the incremental cost of an additional year of life rose from \$46,800 to \$145,000. These estimates suggest that the cost of adding one more year of life has been increasing, and the authors note that their estimates for the 1990s would fail many cost-benefit criteria.

More recent research finds that survival gains have stagnated since 1996 for patients with acute myocardial infarction (AMI), even though spending for patients with this condition has increased (Skinner et al. 2006). These trends suggest that higher spending is not yielding better outcomes. Skinner and colleagues also found that areas with higher spending for AMI did not have better health outcomes.

Research on the wide geographic variation in health care spending suggests that we waste resources (Fuchs 2005). Some payment systems contribute to the problem of wasteful spending by rewarding inefficient or low-quality care as much as if not more than high-quality care delivered by efficient providers. Given questions about Medicare's sustainability, the Commission has called

for distinguishing between high-quality care and care of more questionable value (MedPAC 2004b).

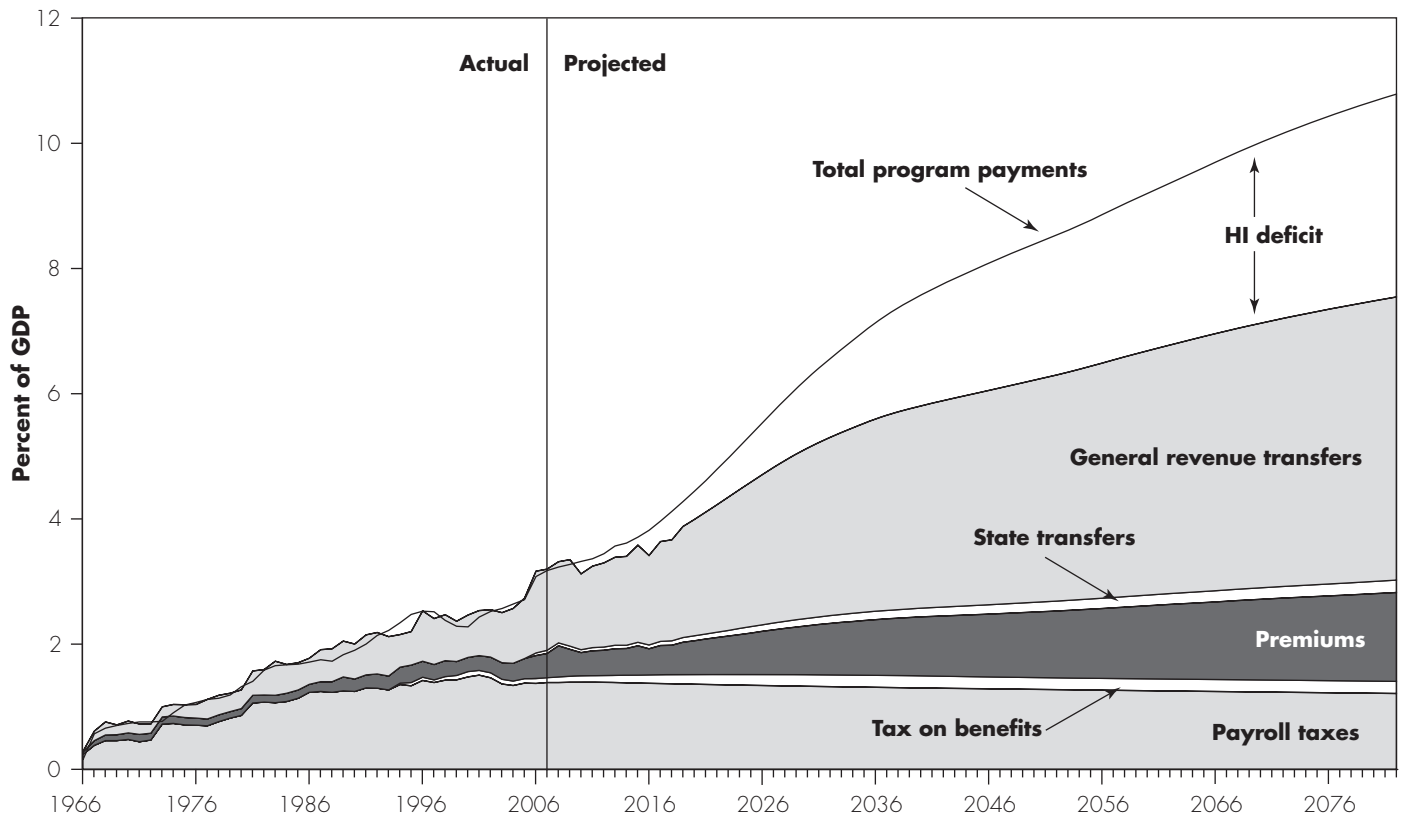
Some studies indicate that the gains to health care may not be evenly distributed in the United States. Numerous measures indicate that low-income individuals and some minority groups have greater difficulty in obtaining appropriate care (AHRQ 2008). Higher income individuals are more likely to be insured, and the insured generally have better access to care than uninsured individuals. For example, insured individuals were six times more likely than uninsured individuals to have a primary care provider. Women over age 40 with lower incomes were less likely to receive mammograms than those with higher incomes. The likelihood of receiving recommended diabetic services increases with income and education and with being white. Conversely, certain minority groups and low-income diabetic individuals were less likely to receive recommended services. Like other quality shortcomings in the U.S. health care system, these disparities persist despite the nation's high level of health spending.

Consequences of rapid spending growth for Medicare

The status of the Medicare trust funds shows the imminent adverse consequences of rapid growth in health care spending. In their most recent report, the Medicare trustees project that, under intermediate assumptions, the assets of the HI trust fund will be exhausted in 2019. Income from payroll taxes collected in that year would cover 78 percent of projected benefit expenditures. In the future, the share of benefit expenditures covered by payroll tax collections would fall as health care cost inflation exceeded growth in payroll; by 2050, payroll tax collections would cover only 40 percent of projected Part A expenditures. Medicare will have no authority to pay the remainder of Part A benefits due. The SMI trust fund is financed automatically with general revenues and beneficiary premiums, but the trustees point out that financing from the federal government's general fund, which is funded primarily through income taxes, would have to increase sharply to match the expected growth in spending. Further, the projections for SMI growth are artificially low because they assume that the reductions in physician spending required under the sustainable growth rate (SGR) formula occur—even though these reductions are usually overridden. Even with the optimistic assumption of lower growth in physician payments, the share of federal taxes and spending would grow significantly. Such rapid growth would have repercussions for beneficiaries and taxpayers

**FIGURE
1-4**

Medicare faces serious challenges with long-term financing



Note: GDP (gross domestic product), HI (Hospital Insurance). These projections are based on the trustees' intermediate set of assumptions. Tax on benefits refers to a portion of income taxes that higher income individuals pay on Social Security benefits that is designated for Medicare. State transfers (often called the Part D "clawback") refer to payments called for within the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 from the states to Medicare for assuming primary responsibility for prescription drug spending.

Source: 2008 annual report of the Boards of Trustees of the Medicare trust funds.

as well as for the availability of funds for other federal priorities. Specifically, if Medicare benefits and payment systems remain as they are today, the trustees note that over time the program will require major new sources of financing for Part A and will automatically require increasing shares of general tax revenues for Part B and Part D. The trustees project that dedicated payroll taxes will make up a smaller share of Medicare's total revenue and that a large deficit between spending for Part A (HI) and revenue from dedicated payroll taxes will develop (Figure 1-4). The share of the nation's GDP committed to Medicare will grow to unprecedented levels, squeezing other priorities in the federal budget. These long-term projections, which assume that the SGR payment

reductions occur, indicate how significant the changes would have to be to ensure that Medicare does not become an excessive burden for future generations.

To finance the projected deficit through 2080, the trustees estimate that Medicare's payroll tax would need to increase immediately from 2.9 percent to 6.44 percent of earned income, or HI spending would need to decrease immediately by 51 percent. Delays in addressing the HI deficit would eventually require even larger increases in the tax rate or even more dramatic cuts in spending. The premiums and general revenues required to finance projected spending for SMI services could impose a significant financial liability on Medicare beneficiaries and on resources for other priorities. If income taxes remain at

**TABLE
1-1****Changes in standard Medicare
Part B premiums**

Year	Monthly premium	Annual change
1996	\$42.50	
1997	43.80	3.0%
1998	43.80	0.0
1999	45.50	3.7
2000	45.50	0.0
2001	50.00	9.0
2002	54.00	7.4
2003	58.70	8.0
2004	66.60	11.9
2005	78.20	14.8
2006	88.50	11.6
2007	93.50	5.3
2008	96.40	3.0
2009	96.40	0.0

Source: 2008 annual report of the Boards of Trustees of the Medicare trust funds.

the historical average share of the economy, the Medicare trustees estimate that the SMI program's share of personal and corporate income tax revenue would rise from 11 percent today to 24 percent by 2030. If the projections for SMI were adjusted to remove the payment reductions required by the SGR, the share of personal and corporate income taxes required would be even higher.

Increasing financial liability for beneficiaries

Rapid growth in Medicare spending has implications for beneficiaries as well as taxpayers, since both groups finance the program. The cost sharing in Medicare is indexed to increase with expenditures through a variety of mechanisms. For example, from 2004 to 2008 the deductible for Part A has risen 17 percent and the Part B deductible has risen 35 percent. In addition, as Medicare raises its rates for services, beneficiary liabilities for copayments and premiums in Part B also increase. Some aspects of Medicare's cost-sharing and taxation are income-related (see text box, pp. 20–21).

Part B premiums for 2009 are \$96.40 per month (or almost \$1,157 for the year), equal to the 2008 amount. It is unusual to not have an increase in the Part B premium, as Table 1-1 indicates. While Part B expenditures are expected to increase in 2009, a higher than expected contingency reserve mitigated the need for an increase in

2009 (CMS 2008c). Medicare wishes to maintain a reserve equal to about 20 percent of Part B expenditures to ensure it has adequate funds if expenses are higher than predicted. However, the reserve was estimated to equal 24 percent in 2008, and CMS concluded that the excess in 2008 would offset the need to raise premiums to fund the contingency reserve in 2008.

The size of Medicare cost sharing relative to the Social Security benefit is one metric for assessing the burden of cost sharing on beneficiaries, as Social Security accounts for three-quarters of the income for 60 percent of the elderly population in 2006 (Federal Interagency Forum on Aging Related Statistics 2008). If we include the costs of both Part B and Part D, the average cost of SMI premiums and cost sharing for Part B and Part D are estimated to absorb about 27 percent of Social Security benefits. On balance, even though most beneficiaries get relief from out-of-pocket spending because of Part D, growth in health care spending eventually will outpace growth in Social Security benefits (Figure 1-5). At the same time, Medicare's lack of a catastrophic cap on cost sharing under Part A and Part B means that individuals with higher health care needs bear a greater share of the cost-sharing burden.

There is significant variation among beneficiaries in the amount of cost sharing they bear, and beneficiaries with the highest Medicare costs bear a disproportionate share of the total cost-sharing burden. For example, in 2005, the 5 percent of beneficiaries with the greatest cost-sharing liability, those with \$5,000 or more in liabilities, accounted for 35 percent—\$17 billion—of all cost-sharing paid. There is no catastrophic protection in Part A and Part B, and those individuals who have high medical expenses pay a disproportionate share of the cost-sharing liability.

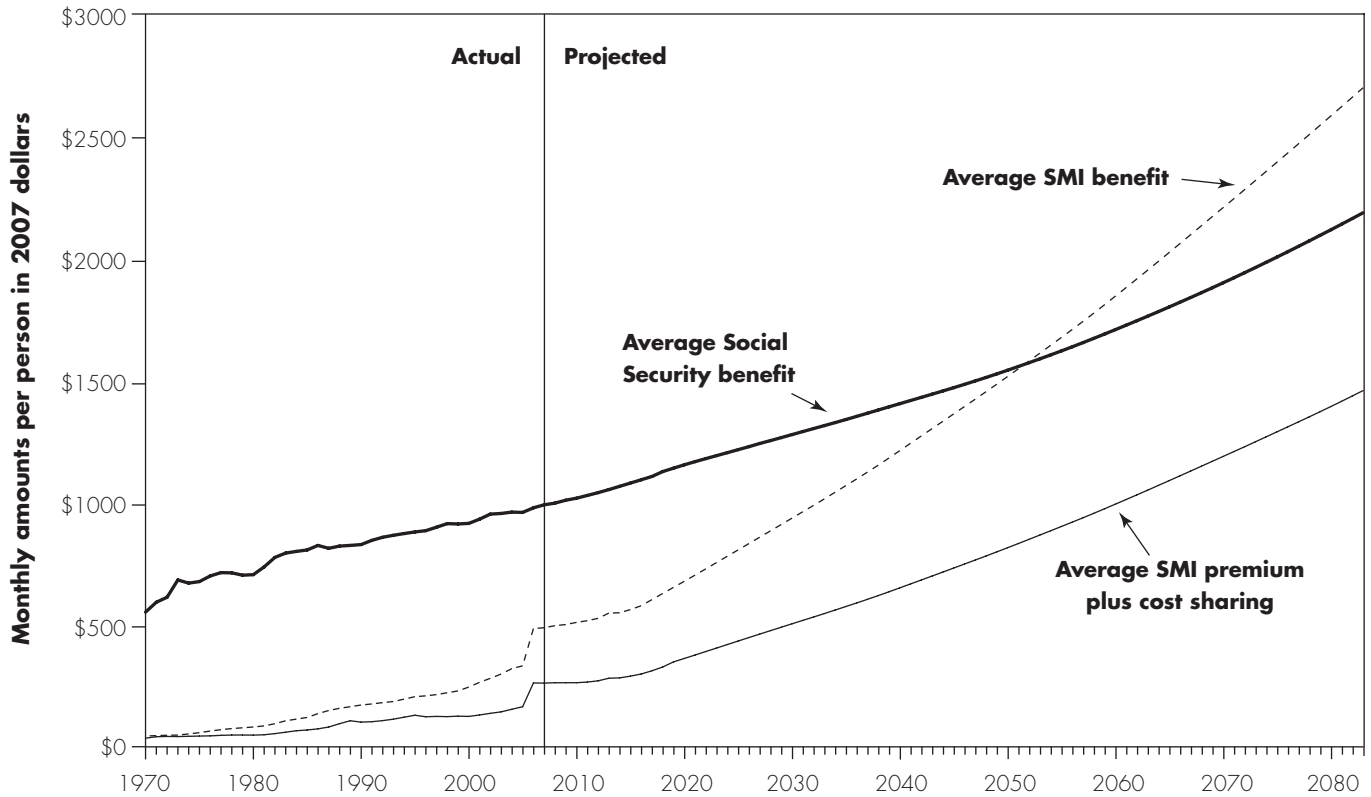
Projections such as these highlight the importance of finding ways to slow growth in Medicare spending (Figure 1-6, p. 22). If policymakers do not act quickly, Medicare's need for financing will place an increasing liability on beneficiaries through their premiums and cost sharing, crowd out resources for other federal priorities, and potentially affect the federal budget deficit, the level of federal taxation and debt, and economic growth.

Consequences of rapid growth for other health care sectors

Some employers argue that the rising cost of health care premiums affects their ability to compete in the world marketplace. However, most economists contend that

**FIGURE
1-5**

Average monthly SMI benefits, premiums, and cost sharing are projected to grow faster than the average monthly Social Security benefit



Note: SMI (Supplementary Medical Insurance). Average SMI benefit and average SMI premium plus cost-sharing values are for a beneficiary enrolled in Part B and (after 2006) Part D. Beneficiary spending on outpatient prescription drugs prior to 2006 is not shown.

Source: 2008 annual report of the Boards of Trustees of the Medicare trust funds.

growth in the health premiums employers pay has no long-term effect on the competitive position of firms (Fuchs 2005, Pauly 1997). Instead, a firm's costs for health premiums substitute for cash compensation that it would otherwise pay to workers, in the same way that retirement and other benefits substitute for higher wages. Longer term contracts with workers may prevent some firms from keeping their full compensation package in line with their productivity. As would be the case with any other cost, rapid growth in health premiums can make firms' need for greater productivity more apparent. To achieve productivity gains quickly, firms sometimes take disruptive steps and redistribute income and health coverage for workers and retirees. Rising health care costs may also affect workers' take-home pay. Employers have a finite budget for compensation, and increases in compensation

costs that are committed to health insurance cannot be used to increase salaries. In recent years, the increases in private health insurance have been two or three times greater than the growth in salaries (Claxton et al. 2007).

Other distributional issues arise from rapid growth in spending on health care. In response to rapid increases in premiums, many employers have raised cost-sharing requirements for their employees, asked them to pay a larger share of premiums, or—particularly for smaller firms—reduced the availability of coverage. From 2000 to 2005, the percentage of nonelderly individuals with employer-based health insurance fell from 67 percent to 62 percent, which analysts attribute to the rising cost of providing health benefits (Fronstin 2007). Since required premium contributions by enrollees have risen faster than

Income-related features of Medicare financing and benefits

Policymakers have added elements to Medicare that set benefits and financial contributions based on beneficiary income. The elements of the income-related policies vary among the different parts of Medicare.

Tax on Social Security benefits

In 1993, the Congress expanded the tax on Social Security benefits to provide additional revenue for the Hospital Insurance (HI) trust fund. For most seniors, income from Social Security is not taxable. However, beneficiaries with incomes over \$34,000 if single, and \$44,000 if married filing jointly, include up to 85 percent of Social Security benefits in their taxable income.⁷ This additional income adds to federal tax liability, and a portion of the revenues associated with this income is paid into the HI trust fund. In 2007, about \$11 billion was paid into the HI trust fund from taxation of Social Security benefits. Because the dollar threshold for including Social Security benefits in taxable income is a fixed amount, the number of beneficiaries paying this tax is expected to increase in future years.

Part B income-related premium

The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 is also a Part B income-

related premium. Individuals with modified adjusted gross incomes (MAGIs) of \$85,000 or more and married couples with MAGIs of \$170,000 or more pay a higher premium. The payment was phased in over three years beginning in 2007, and starting in 2009 higher income individuals will pay monthly premiums equal to 35 percent, 50 percent, 65 percent, or 80 percent of Medicare's average Part B costs for elderly beneficiaries, depending on their income. All other individuals pay premiums equal to 25 percent of average costs for elderly beneficiaries. The highest income beneficiaries will pay premiums of about \$308.30 in 2009, more than triple the standard premium. CMS estimates that about 5 percent of Part B enrollees will pay higher premiums based on income (CMS 2006).

Medicare Savings Programs

Beginning with the qualified Medicare beneficiary (QMB) program in 1988, the Congress has created a number of programs to help beneficiaries with limited incomes pay for Medicare premiums and cost sharing. Medicare Savings Programs—including QMB, specified low-income Medicare beneficiary (SLMB), and qualifying individual—have the potential to reduce the financial burden for access to needed medical services for beneficiaries with limited incomes. Beneficiaries who meet income and resource (or asset)

continued next page

income, some workers choose to forgo coverage (Ginsburg 2004). During 2006, nearly 45.7 million people, or 15.3 percent of the U.S. population, were uninsured at some point in time (DeNavas-Walt et al. 2008).

Increases in the numbers of people without private health insurance raise demand for public coverage. Those who cannot secure coverage may receive uncompensated care, and providers may seek higher payments for insured patients to cover losses. The costs of caring for the uninsured do not fall equally on all providers, since

the uninsured often postpone care until their condition becomes more serious. In turn, providers that bear more of those costs sometimes seek public subsidies or limits on the competition they face. Rising costs put upward pressure on the financing needs of public and private health care programs for the beneficiaries who already have coverage. Some analysts contend that higher health care costs can also lead to greater fragmentation of risk pools in the health care market, as healthier people search for insurance alternatives that are less costly (Glied 2003).

Income-related features of Medicare financing and benefits (cont.)

criteria pay no Medicare Part B premiums and, in some cases, no deductibles or coinsurance for Medicare-covered services (Table 1-2). They are also deemed eligible for the low-income drug subsidy (LIS) under Part D. Despite the benefits available, participation in the programs has been low (MedPAC 2008b). An estimated 33 percent of eligible beneficiaries are enrolled in the QMB program and fewer eligible beneficiaries (13 percent) are taking part in the SLMB program.

Part D low-income drug subsidy

The LIS provides limited copayments and gap coverage for beneficiaries who meet certain eligibility requirements tied to income and assets. Beneficiaries who qualify for the benefit pay little or no premiums and

cost sharing and are not subject to the Part D coverage gap. Despite considerable publicity, participation in LIS remains limited. As of January 2007, about 9.5 million beneficiaries were receiving the drug subsidy. Of them, about 7 million, or 57 percent of the eligible population, were dual eligibles who were deemed eligible because of their Medicaid status. Another 2.3 million, or 17 percent of the eligible population, individually applied for LIS and were found eligible by the Social Security Administration. Of those beneficiaries not automatically enrolled in LIS, the National Council on Aging estimates that between 35 percent and 42 percent of those eligible have enrolled (ABC 2007). CMS estimates that most Medicare beneficiaries who have not signed up for Part D and do not have other creditable drug coverage are eligible for LIS. ■

**TABLE
1-2**

Federal eligibility criteria for Medicare Savings Programs

Medicare Savings Program	Income	Asset limit (individual/couple)	Covered costs and services
QMB	<100% of poverty	\$4,000/\$6,000	Medicare premiums and cost-sharing
SLMB	100–120% of poverty	\$4,000/\$6,000	Medicare premiums
QI—block grant funded by federal government	120–135% of poverty	\$4,000/\$6,000	Medicare premiums

Note: QMB (qualified Medicare beneficiary), SLMB (specified low-income beneficiary), QI (qualifying individual). States have the flexibility to adjust countable income and assets.

Source: Nemore et al. 2006.

Meeting the challenges of Medicare reform

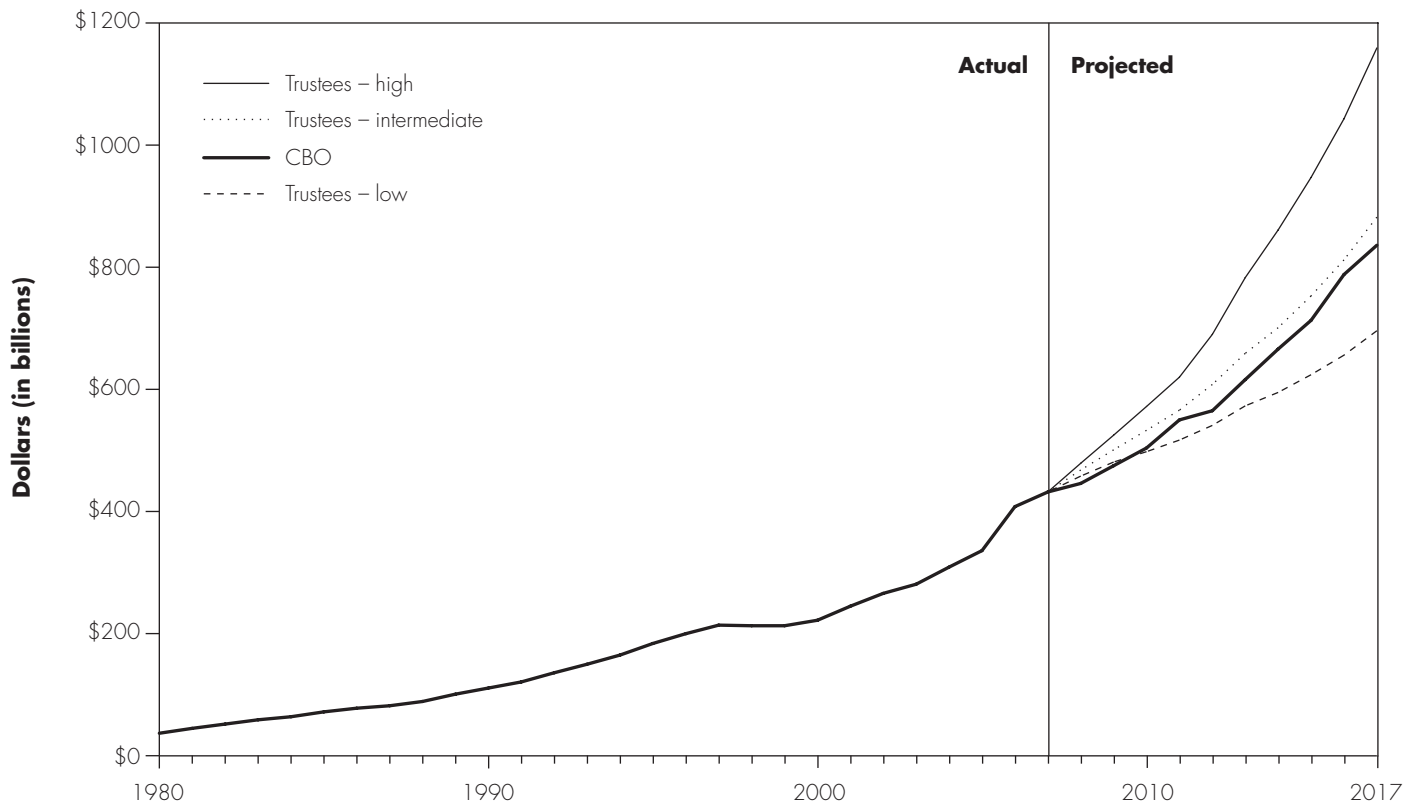
Medicare faces powerful upward pressures on spending that will be difficult to staunch. The interaction between broad use of newer medical technologies and health insurance is thought to account for much of the long-term spending growth in the United States, and those forces will likely push future spending higher. The recent addition of Medicare's outpatient prescription drug benefit places a substantial new financial responsibility on the program.

As we near the end of this decade, Medicare will have to grapple with the additional challenge of higher enrollment levels associated with retiring baby boomers, which will affect program spending levels as well as the demand for federal resources for other programs that benefit the elderly, such as Social Security and Medicaid.

Policymakers will need to use a combination of approaches to address Medicare's long-term financing because no single strategy will be sufficient to address the problem. Strategies to constrain payments may be shorter term in nature since, over time, continually restricting Medicare's payments below the cost of

FIGURE 1-6

Trustees and CBO project Medicare spending to grow at an annual average rate of 7 percent to 8 percent over the next 10 years



Note: CBO (Congressional Budget Office). All data are nominal, gross program outlays (mandatory plus administrative expenses) by calendar year.

Source: 2008 annual report of the Boards of Trustees of the Medicare trust funds. CBO March 2008 baseline.

providing care could hurt beneficiaries' access to care. Changes to supplemental coverage could curb spending but could require changes to cost sharing that have divisive distributional impacts. Increasing revenue would not disrupt the current delivery system, but it would increase the tax burden on society and reduce the resources available for other national priorities.

Encouraging greater efficiency may be the most desirable because it would enable the Medicare program to do more with existing resources. Reconfigured payment systems would change the distribution of payments among providers, with some gaining and others losing. Much of the Commission's work focuses on encouraging greater efficiency, and the recommendations in this report are part of our mandate from the Congress. These recommendations assess the efficiency of each

payment system, but the Commission acknowledges that the challenges facing Medicare require addressing the incentives and organization of the health care system at a fundamental level. In prior reports to the Congress, we have made recommendations that would address some of these changes, including comparative effectiveness, medical home, and the bundling of services provided in an episode of care (MedPAC 2008c, MedPAC 2007). ■

Endnotes

- 1 As Robert Myers, the Social Security Administration's Chief Actuary in 1965, stated, designing a two-part program resulted from a "legislative process [that] was a matter of political compromise and was not by any means dictated by actuarial principles" (Myers 2000).
- 2 The premium for Part D plans is set to cover 25 percent of the cost of the benefit. However, the balance of Part D funded by the general fund is greater than 75 percent because several categories of expenditures are not included in the premium. The federal government pays the Part D premium for low-income beneficiaries. Part D also pays a subsidy to employers that is not funded through premiums. For these reasons, the overall share of Part D expenditures funded by the general fund is greater than 75 percent.
- 3 The United States uses private health insurance extensively because of the country's tax policies and economic history. During the World War II era, larger U.S. companies began offering health insurance to provide higher compensation to a relatively scarce labor force while avoiding wage and price controls. The federal government did not consider such fringe benefits subject to wage controls, and health insurance contributions paid by employers were not considered taxable income (Helms 2005). At the time, the health insurance industry was in its infancy. Since then, the use of employer-sponsored health insurance and the broader market for private insurance have grown substantially.
- 4 For example, we would not include the value of personal exemptions from individual income tax for dependent minors when calculating U.S. economic output.
- 5 Dollar amounts are adjusted for purchasing power parity—differences in the cost of living across countries—by comparing prices for a fixed basket of goods. OECD's adjustment is a broad-based basket, not one specific to health costs.
- 6 The model uses data from OECD countries to estimate the predicted relationship between per capita income and per capita health care consumption. The authors then compare estimated health care spending for the United States based on the model with actual health care spending and arrive at a variance of \$477 billion between actual and predicted spending.
- 7 Half of the Social Security benefit amount is included in determining beneficiary income under these thresholds.

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CHAPTER

2

**Assessing payment adequacy
and updating payments in
fee-for-service Medicare**

R E C O M M E N D A T I O N S

Section 2A: Hospital inpatient and outpatient services

2A-1 The Congress should increase payment rates for the acute inpatient and outpatient prospective payment systems in 2010 by the projected rate of increase in the hospital market basket index, concurrent with implementation of a quality incentive payment program.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

.....

2A-2 The Congress should reduce the indirect medical education adjustment in 2010 by 1 percentage point to 4.5 percent per 10 percent increment in the resident-to-bed ratio. The funds obtained by reducing the indirect medical education adjustment should be used to fund a quality incentive payment program.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

Section 2B: Physician services and ambulatory surgical centers

2B-1 The Congress should update payments for physician services in 2010 by 1.1 percent.

COMMISSIONER VOTES: YES 15 • NO 0 • NOT VOTING 0 • ABSENT 2

.....

2B-2 The Congress should establish a budget-neutral payment adjustment for primary care services billed under the physician fee schedule and furnished by primary-care-focused practitioners. Primary-care-focused practitioners are those whose specialty designation is defined as primary care and/or those whose pattern of claims meets a minimum threshold of furnishing primary care services. The Secretary would use rulemaking to establish criteria for determining a primary-care-focused practitioner.

COMMISSIONER VOTES: YES 13 • NO 2 • NOT VOTING 1 • ABSENT 1

.....

2B-3 The Congress should direct the Secretary to increase the equipment use standard for expensive imaging machines from 25 hours to 45 hours per week. This change should redistribute relative value units from expensive imaging to other physician services.

COMMISSIONER VOTES: YES 14 • NO 0 • NOT VOTING 2 • ABSENT 1

.....

2B-4 The Congress should increase payments for ambulatory surgical center (ASC) services in calendar year 2010 by 0.6 percent. In addition, the Congress should require ASCs to submit to the Secretary cost data and quality data that will allow for an effective evaluation of the adequacy of ASC payment rates.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

Section 2C: Outpatient dialysis services

2C The Congress should maintain current law and update the composite rate in calendar year 2010 by 1 percent.

COMMISSIONER VOTES: YES 15 • NO 1 • NOT VOTING 0 • ABSENT 1

R E C O M M E N D A T I O N S

Section 2D: Skilled nursing facility services

- 2D** The Congress should eliminate the update to payment rates for skilled nursing facility services for fiscal year 2010.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

.....

Section 2E: Home health services

- 2E-1** The Congress should eliminate the market basket increase for 2010 and advance the planned reductions for coding adjustments in 2011 to 2010, so that payments in 2010 are reduced by 5.5 percent from 2009 levels.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

.....

- 2E-2** The Congress should direct the Secretary to rebase rates for home health care services in 2011 to reflect the average cost of providing care.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

.....

- 2E-3** The Congress should direct the Secretary to assess payment measures that protect the quality of care and ensure incentives for the efficient delivery of home health care. The study should include alternative payment strategies such as blended payments and risk corridors and outcome-based quality incentives.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

.....

Section 2F: Inpatient rehabilitation facility services

- 2F** The update to the payment rates for inpatient rehabilitation facility services should be eliminated for fiscal year 2010.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

.....

Section 2G: Long-term care hospital services

- 2G** The Secretary should update payment rates for long-term care hospitals for fiscal year 2010 by the projected rate of increase in the rehabilitation, psychiatric, and long-term care hospital market basket index less the Commission's adjustment for productivity growth.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

Assessing payment adequacy and updating payments in fee-for-service Medicare

Chapter summary

The Commission makes payment update recommendations annually for fee-for-service Medicare. An update is the amount (usually expressed as a percentage change) by which the base payment for all providers in a prospective payment system is changed. To determine an update, we first assess the adequacy of Medicare payments for efficient providers in the current year (2009). Next, we assess how those providers' costs are likely to change in the year the update will take effect (the policy year—2010). Finally, we make a judgment on what, if any, update is needed. When considering whether payments in the current year are adequate, we account for policy changes (other than the update) that are scheduled to take effect in the policy year under current law. This year, we make update recommendations in nine sectors: hospital inpatient, hospital outpatient, physician, ambulatory surgical center, skilled nursing facility, home health, outpatient dialysis, inpatient rehabilitation facilities, and long-term care hospitals. The analyses of payment adequacy by sector are in the sections that follow. ■

In this chapter

- Are Medicare payments adequate in 2009?
- What cost changes are expected in 2010?
- Limitations to payment adequacy analysis across post-acute care settings
- How should Medicare payments change in 2010?
- Further examination of payment adequacy

The goal of Medicare payment policy is to get good value for the program’s expenditures, which means maintaining beneficiaries’ access to high-quality services while encouraging efficient use of resources. Necessary steps toward achieving this goal involve:

- setting the base payment rate (i.e., the payment for services of average complexity) at the right level;
- developing payment adjustments that accurately reflect market, service, and patient cost differences beyond providers’ ability to control; and
- considering the need for annual payment updates and other policy changes.

Our general approach to developing payment policy recommendations attempts to do two things: first, make enough funding available to ensure that payments are adequate to cover the costs of efficient providers, and second, improve payment accuracy among services and providers. Together, these steps should maintain Medicare beneficiaries’ access to high-quality care while creating financial pressure on providers to make better use of taxpayers’ and beneficiaries’ resources.

To help determine the appropriate level of aggregate funding for a given payment system in 2010, we consider:

- Are payments adequate for efficient providers in 2009?
- How will efficient providers’ costs change in 2010?

Taking into account those two factors, we then determine how Medicare payments for the sector in aggregate should change in 2010. Efficient providers use fewer inputs to produce quality outputs. Efficiency could be increased by

using the same inputs to produce a higher quality output or by using fewer inputs to produce the same quality output. In the first part of our adequacy assessment, we judge whether Medicare payments are too high or too low compared with efficient providers’ costs in the current year—2009. In the second part, we assess how we expect efficient providers’ costs to change in the policy year—2010. We are exploring ways to approximate the characteristics of efficient providers. For example, in past years, we examined the financial performance of hospitals with consistently low risk-adjusted costs per discharge (MedPAC 2008). This year, we extend those analyses by examining a set of hospitals with historically low risk-adjusted costs, mortality, and readmissions.

Within a given level of funding, we may also consider changes in payment policy that would affect the distribution of payments and improve equity among providers or improve equity and access to care for beneficiaries. We then recommend updates and other policy changes for 2010. This analytic process is illustrated in Figure 2-1.

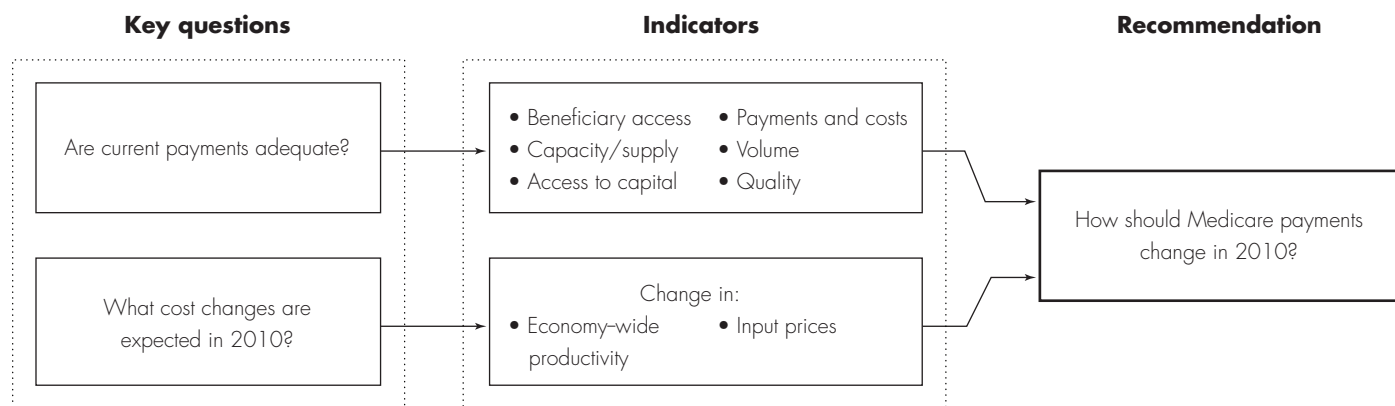
Are Medicare payments adequate in 2009?

The first part of the Commission’s approach to developing payment updates is to assess the adequacy of current Medicare payments. For each sector, we make a judgment by examining information on:

- beneficiaries’ access to care
- changes in the capacity and supply of providers

FIGURE 2-1

Payment adequacy framework



- changes in the volume of services
- changes in the quality of care
- providers' access to capital
- Medicare payments and providers' costs for 2009

Some measures focus on beneficiaries (e.g., access to care) and some focus on providers (e.g., the relationship between payments and costs in 2009). We consider multiple measures because the direct relevance, availability, and quality of each type of information vary among sectors, and no single measure provides all the information needed for the Commission to judge payment adequacy.

Beneficiaries' access to care

Access to care is an important indicator of the willingness of providers to serve Medicare beneficiaries and the adequacy of Medicare payments. (Poor access could indicate payments are too low; good access could indicate payments are adequate or more than adequate.) However, other factors unrelated to Medicare's payment policies may also affect access to care. These factors include coverage policy, beneficiaries' preferences, supplemental insurance, transportation difficulties, and the extent to which Medicare is the dominant payer for the service.

The measures we use to assess beneficiaries' access to care depend on the availability and relevance of information in each sector. For example, using results from several surveys, we assess physicians' willingness to serve beneficiaries and beneficiaries' opinions about their access to physician care. For home health services, we examine data on whether communities are served by providers.

Changes in the capacity of providers

Rapid growth in the capacity of providers to furnish care may indicate that payments are more than adequate to cover their costs. Changes in technology and practice patterns may also affect providers' capacity. For example, less invasive procedures or lower priced equipment could increase providers' capacity to provide certain services.

Substantial increases in the number of providers may suggest that payments are more than adequate and could raise concerns about the value of the services being furnished. For instance, rapid growth in the number of home health agencies (HHAs) could suggest that Medicare's payment rates are at least adequate and potentially more than adequate. If Medicare is not the

dominant payer for a given provider type, changes in the number of providers may be influenced more by other payers and their demand for services and thus may be difficult to relate to Medicare payments. When facilities close, we try to distinguish between closures that have serious implications for access to care in a community and those that may have resulted from excess capacity.

Changes in the volume of services

An increase in the volume of services beyond that expected for the increase in the number of beneficiaries could suggest that Medicare's payment rates are too high. Reductions in the volume of services, on the other hand, may indicate that revenues are inadequate for providers to continue operating or to provide the same level of services. However, changes in the volume of services are often difficult to interpret because increases and decreases could be explained by other factors, such as incentives in the payment system, population changes, changes in disease prevalence among beneficiaries, technology, practice patterns, and beneficiaries' preferences. For example, the number of Medicare beneficiaries in the traditional fee-for-service (FFS) program has decreased in some years as more beneficiaries choose plans in the Medicare Advantage program; therefore, we look at the volume of services per FFS beneficiary as well as the total volume of services. Explicit decisions about service coverage can also influence volume. For example, in 2004 CMS redefined arthritis conditions it thought appropriate for treatment in inpatient rehabilitation facilities (IRFs), a decision that contributed to a reduction in IRF volume. Changes in the volume of physician services must be interpreted particularly cautiously, because some evidence suggests that volume may also go up when payment rates go down—the so-called volume offset. Whether this phenomenon exists in any other sector depends on how discretionary the services are and on the ability of providers to influence beneficiary demand for the services.

Changes in the quality of care

The relationship between changes in quality and Medicare payment adequacy is not direct. Many factors influence quality, including beneficiaries' preferences and compliance with providers' guidance and providers' adherence to clinical guidelines. Medicare's payment systems are not generally connected to quality; payment is usually the same regardless of the quality of care. In fact, undesirable outcomes (e.g., unnecessary complications) may result in additional payments. The influence of Medicare's payments on quality of care may also be

limited when Medicare is not the dominant payer. However, the program's quality improvement activities can influence the quality of care for a sector. Changes in quality are thus a limited indicator of Medicare payment adequacy. In addition, increasing payments through an update for all providers in a sector regardless of their individual quality may not be an appropriate response to quality problems in a sector, particularly if other factors point to adequate payments.

The Commission supports linking payment to quality to hold providers accountable for the care they furnish as discussed in our March 2005 and 2004 reports (MedPAC 2005, MedPAC 2004). Specifically, the Commission recommended that pay-for-performance programs be implemented for hospitals, physicians, dialysis facilities and physicians furnishing services to dialysis patients, HHAs, and Medicare Advantage plans (MedPAC 2005, MedPAC 2004). For hospitals and dialysis providers, measures are already available for such a program. For physicians, we described a two-step process that starts with measures of information technology function and moves on to process of care and other measures. Last year, the Commission recommended that pay for performance be adopted for skilled nursing facilities (SNFs) (MedPAC 2008).

Providers' access to capital

Access to capital is necessary for providers to maintain and modernize their facilities and capabilities for patient care. Widespread inability to access capital throughout a sector might in part reflect on the adequacy of Medicare payments (or, in some cases, even on the expectation of changes in the adequacy of Medicare payments). However, access to capital may not be a useful indicator of the adequacy of Medicare payments when the sector has little need for capital, when providers derive most of their payments from other payers or other lines of business, or when conditions in the credit markets are extreme.

This year, because of the extraordinary conditions in the credit market, access to capital is being driven almost entirely by factors other than Medicare payment adequacy. For example, health care municipal bond issuances reached \$24.7 billion in the second quarter of 2008 (a level not seen since 1990); the market then essentially froze in late September and virtually no health care entities issued municipal bonds (*Modern Healthcare* 2008). The lack of access to capital in late September through most of October was not a result in changes in the adequacy of Medicare payments; it was a result of the conditions in the credit markets. Therefore, although we may reference

some of the usual determinants of access to capital, such as the underlying financial condition of providers, any projections about access to capital are guarded because of the extreme volatility in the credit markets. With conditions changing daily, any forecast about access to capital that is based on a snapshot of current data may be incorrect in a few months and will have little to do with the adequacy of Medicare payments.

A closely allied question is: How will overall economic conditions affect the health care sectors' financial performance? For example, the decline in investment portfolios, increasing interest expenses, and possible declines in private payer patient volumes and increases in uninsured patients may lower overall financial performance. But the adequacy of Medicare payments will not necessarily decline as a result. For example, if hospitals control their costs in reaction to economic conditions, we may see lower wage increases and lower supply costs—which might offset factors that increase unit cost, such as a decline in volumes. Attempting to offset overall economic conditions through increased Medicare payment updates would not be appropriate, because the implications of the decline in overall economic conditions for Medicare payment adequacy are not straightforward, may change in the short run, and may differ by sector.

Increasing updates would also be a poorly targeted response to economic problems. Base rate increases go to all providers, yet not all providers are equally affected by the economy or equally dependent on Medicare payments. For example, a hospital with few Medicare patients would be hurt more by a decline in employer insurance coverage caused by a declining economy than would a hospital with a high percentage of Medicare patients. Yet an increase in the update would help the second hospital more than the first. Moreover, addressing problems resulting from a poor economy by increasing Medicare payments would either further threaten program sustainability or require increasing taxes. In particular, the Medicare Part A Trust Fund is financed by a payroll tax, and any increase in the payroll tax may discourage employers from hiring or retaining workers—not the best signal to send a troubled economy.

Payments and costs for 2009

For most payment sectors, we estimate aggregate Medicare payments and costs for the year preceding the policy year. In this report, we estimate payments and costs for 2009 to inform our update recommendations for 2010.

For providers that submit cost reports to CMS—acute care hospitals, SNFs, HHAs, outpatient dialysis facilities, IRFs, and long-term care hospitals (LTCHs)—we estimate total Medicare-allowable costs and assess the relationship between Medicare’s payments and those costs. We typically express the relationship between payments and costs as a payment margin, which is calculated as payments less costs divided by payments. By this measure, if costs increase faster than payments, margins will decrease.

To estimate payments, we first apply the annual payment updates specified in law for 2008 and 2009 to our 2007 base data. We then model the effects of other policy changes that will affect the level of payments, including those—other than payment updates—that are scheduled to go into effect in 2010. This method allows us to consider whether current payments would be adequate under all applicable provisions of current law. The result is an estimate of what payments in 2009 would be if 2010 payment rules were in effect. To estimate 2009 costs, we consider the rate of input price inflation and historical cost growth. As appropriate, we adjust for changes in the product (i.e., changes within the service provided, such as fewer visits in an episode of home health care) and trends in key indicators, such as historical cost growth, productivity, and the distribution of cost growth among providers.

Using margins

In most cases, we assess Medicare margins for the services furnished in a single sector and covered by a specific payment system (e.g., SNF or home health services). However, in the case of hospitals, which often provide services that are paid for in multiple Medicare payment systems, our measures of payments and costs for an individual sector may become distorted because of the allocation of overhead costs or cross subsidies among services. For hospitals, we assess the adequacy of payments for the whole range of Medicare services they furnish—inpatient, outpatient, SNF, home health, psychiatric, and rehabilitation services (each of which is paid under a different Medicare payment system). We compute an overall hospital margin encompassing Medicare-allowed costs and payments for all the sectors.

Total margins—which include payments from all payers as well as revenue from nonpatient sources—do not play a direct role in the Commission’s update deliberations. The adequacy of Medicare payments is assessed relative

to the costs of treating Medicare beneficiaries, and the Commission’s recommendations address a sector’s Medicare payments, not total payments.

We calculate a sector’s aggregate Medicare margin to determine whether total Medicare payments cover average providers’ allowable costs and to inform our judgment about payment adequacy. To assess whether changes are needed in the distribution of payments, we calculate Medicare margins for certain subgroups of providers with unique roles in the health care system. For example, because location and teaching status enter into the payment formula, we calculate Medicare margins based on where hospitals are located (in urban or rural areas) and their teaching status (major teaching, other teaching, or nonteaching).

Multiple factors can contribute to changes in the Medicare margin, including changes in the efficiency of providers, unbundling of the services included in the payment unit, and other changes in the product (e.g., reduced lengths of stay at inpatient hospitals). Information about the extent to which these factors have contributed to margin changes may help in deciding how much to change payments.

Finally, the Commission makes a judgment when assessing the adequacy of payments relative to costs. No single standard governs this relationship for all sectors, and margins are not the only indicator for determining payment adequacy.

Appropriateness of current costs

A number of factors—including a provider’s response to changes in the payment system, provider efficiency, product changes, and cost-reporting accuracy—complicate our assessment of the relationship between Medicare’s payments and providers’ costs. Measuring the appropriateness of costs is particularly difficult in new payment systems because changes in response to the incentives in the new system are to be expected. For example, the number and types of visits in a home health episode changed significantly after the home health prospective payment system (PPS) was introduced. In other systems, coding may change. For example, the hospital inpatient PPS recently introduced a new patient classification system that eventually will result in more accurate payments. However, in the near term, it is predicted to result in higher payments because provider coding will improve, making patient complexity appear higher—although the underlying patient complexity is unchanged. Any kind of rapid change in policy,

technology, or product can make it difficult to measure costs per unit of comparable product.

To assess whether reported costs reflect the costs of efficient providers, we examine recent trends in the average cost per unit of output, variation in standardized costs and cost growth, and evidence of change in the product being furnished. One issue Medicare faces is the extent to which private payers are exerting pressure on providers to constrain cost. If private payers do not exert pressure, providers' costs will increase and, all other things being equal, margins on Medicare patients will decrease. Providers that are under pressure to constrain costs generally have managed to slow their growth in cost more than those facing less pressure (Gaskin and Hadley 1997, MedPAC 2005). Lack of cost pressure would be more common in markets where a few providers dominate and have negotiating leverage over payers. (See the text box in the hospital chapter, pp. 62–64, for a more complete discussion of the relation between cost pressure and Medicare margins.)

Variation in cost growth among providers in a sector can give us insight into the range of performance that facilities are capable of achieving. For example, if some providers in a given sector have more rapid growth in cost than others, we might question whether those increases are appropriate.

Changes in product can significantly affect unit costs. Returning to the example of home health, substantial reductions in the number of visits in home health episodes would be expected to reduce the growth in costs per episode. If costs per episode instead increased while the number of visits decreased, one would question the appropriateness of the cost growth.

What cost changes are expected in 2010?

The second part of the Commission's approach to developing payment update recommendations is to account for anticipated cost changes in the next payment year. For each sector, we review evidence about the factors that are expected to affect providers' costs. A major factor is change in input prices, as measured by the applicable CMS price index. For facility providers, we use the forecasted increase in an industry-specific index of national input prices, called a market basket index. For physician services, we use a CMS-derived weighted average of price changes for inputs used to provide

physician services. Forecasts of these indexes approximate how much providers' costs would rise in the coming year if the quality and mix of inputs they use to furnish care remained constant. Any errors in the forecast are taken into account in future years while judging payment adequacy. Another factor is the trend in actual cost growth, which may be used to inform our estimate if it differs significantly from the market basket.

A final factor that figures into our estimate of cost change is improvement in productivity. Competitive markets demand continual improvements in productivity from workers and firms. These workers and firms pay the taxes used to finance Medicare. Medicare's payment systems should exert the same pressure on providers of health services. Consequently, the Commission may choose to apply an adjustment to the update to encourage providers to produce a unit of service as efficiently as possible while maintaining quality. The Commission begins its deliberations with the expectation that Medicare should benefit from productivity gains in the economy at large (the 10-year average of productivity gains in the general economy, currently 1.3 percent). But the Commission may alter that expectation depending on the circumstances of a given set of providers in a given year. This factor links Medicare's expectations for efficiency to the gains achieved by the firms and workers who pay the taxes that fund Medicare.

Limitations to payment adequacy analysis across post-acute care settings

Medicare provides coverage for beneficiaries in four post-acute care (PAC) settings: SNFs, HHAs, IRFs, and LTCHs. Prospective payment systems for each setting were developed and implemented separately to control growth in spending and encourage more efficient provision of services in each setting.

While we assess the adequacy of payments under each of these PPSs, these separate systems encompass their own incentives (both positive and negative) that may distort the provision of PAC. The individual "silos" of PAC do not function as an integrated system—in which a common patient instrument assesses patient care needs and guides placement decisions, payments reflect the resource needs of the patients and not the setting, and outcomes gauge the value of the care furnished. Several barriers inhibit integration of the current systems and undermine the

program's ability to purchase high-quality care in the least costly PAC setting consistent with the care needs of the beneficiary. These barriers include:

- inaccurate case-mix measurement
- incomparable data on the quality and outcomes of care
- lack of evidence-based standards

The Deficit Reduction Act of 2005 (DRA) required CMS to conduct a demonstration that supports PAC payment reform across settings. CMS has begun data collection for the demonstration, using a common patient assessment instrument and gathering cost information at hospital discharge and at each PAC setting that beneficiaries use. The report on the demonstration is due July 2011. Thus, while CMS envisions an integrated system and has taken a key step toward developing one, implementation is years away.

The barriers that undermine the integration of care across PAC settings also limit our ability to assess differences in financial performance across providers in the same setting. Without an adequate case-mix adjuster, observed differences in costs could reflect differences in the mix of patients treated rather than efficiency. Differences in costs could also be attributable to variations in the quality of care furnished and the outcomes patients achieve.

Broad PAC reform that the Commission favors—and that the post-acute demonstration mandated by the DRA envisions—has begun but is several years away. In the meantime, PAC services will continue to be paid for under separate PPSs, and the program must continue to ensure that payments are adequate, while discouraging patient selection and encouraging providers to furnish high-quality services.

How should Medicare payments change in 2010?

The Commission's judgments about payment adequacy and expected cost changes result in an update recommendation for each payment system. Coupled with the update recommendations, we may also make recommendations about the distribution of payments among providers. These distributional changes are sometimes, but not always, budget neutral. Our recommendations for pay for performance are one

example of distributional changes that will affect providers differentially based on their performance.

The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 requires the Commission to consider the budget consequences of our recommendations. We document in this report how spending for each recommendation would compare with expected spending under current law. We develop rough estimates of the impact of recommendations relative to the current budget baseline, placing each recommendation into one of several cost-impact categories. In addition, we assess the impacts of our recommendations on beneficiaries and providers.

Further examination of payment adequacy

As discussed in Chapter 1, it is essential to look at payment adequacy not only within the context of individual payment systems but also in terms of Medicare as a whole. The Commission is alarmed by the trend in Medicare spending per beneficiary—a growth rate well above that of the economy overall—without a commensurate increase in value to the program, such as higher quality of care or improved health status. If unchecked, the growth in spending, combined with retirement of the baby boomers, will result in the Medicare program absorbing unprecedented shares of the gross domestic product and of federal spending. Slowing the increase in Medicare outlays is important; indeed, it is urgent. Medicare's rising costs, coupled with the projected growth in the number of beneficiaries, will significantly burden taxpayers.

The financial future of Medicare prompts us to look at payment policy and ask what can be done to develop, implement, and refine payment systems to reward quality and efficient use of resources while improving payment equity.

In many past reports, the Commission has stated that Medicare should institute policies that improve the value of the program to beneficiaries and taxpayers. These policies should help improve the Medicare payment system. Policies such as pay for performance that link payments to the quality of care providers furnish should be implemented. To reduce unwarranted variation in volume and expenditures, Medicare should collect and distribute

information about how providers' practice styles and use of resources compare with those of their peers. Ultimately, this information could be used to adjust payments to providers. Increasing the value of the Medicare program to beneficiaries and taxpayers requires knowledge about the costs and health outcomes of services. Until more information on the comparative effectiveness of new and existing health care treatments and technologies is available, patients, providers, and the program will have difficulty determining what constitutes good-quality care and effective use of resources.

As we examine each of the payment systems, we also look for opportunities to develop policies that can create incentives for providing high-quality care efficiently across providers and over time. Some of the current payment systems create strong incentives for increasing volume, and very few of these systems encourage providers to work together toward common goals. Future Commission work will examine innovative policies for the FFS program.

Medicare should exert continued financial pressure on providers to control their costs, much as would happen in a competitive marketplace. We have found, for example, that hospitals under financial pressure from the private sector tend to control their costs and cost growth better than those with high non-Medicare profits (MedPAC 2008). In recent years, hospitals' non-Medicare profits have been high and so has hospital cost growth. Medicare payments have not fully accommodated this cost growth and hence Medicare margins have declined—and that has placed some pressure on hospitals to constrain costs. Through 2007, this pressure has not seemed to affect providers' investment in new capital or other expansion projects, which reached record levels. In 2008, as credit markets deteriorated, some projects started to be delayed and there is much uncertainty about future investment. Cost growth may be affected by the larger economic conditions as well, in either direction. Therefore, the Commission must remain vigilant in the face of this uncertainty, closely examining adequacy indicators for providers, making sure there is pressure to contain cost growth, and setting a demanding standard for determining which providers qualify for a payment update each year. ■

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SECTION 2A

**Hospital inpatient and
outpatient services**

R E C O M M E N D A T I O N S

2A-1 The Congress should increase payment rates for the acute inpatient and outpatient prospective payment systems in 2010 by the projected rate of increase in the hospital market basket index, concurrent with implementation of a quality incentive payment program.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

.....

2A-2 The Congress should reduce the indirect medical education adjustment in 2010 by 1 percentage point to 4.5 percent per 10 percent increment in the resident-to-bed ratio. The funds obtained by reducing the indirect medical education adjustment should be used to fund a quality incentive payment program.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

SECTION A

Hospital inpatient and outpatient services

Section summary

Most indicators of payment adequacy for hospital services are positive. Access to hospital services continues to be good, with more hospitals opening than closing. In fact, the overall level of hospital construction was at a record high in 2007. Looking across service lines, many hospitals are expanding both the low-technology (e.g., palliative care) and high-technology (e.g., imaging) services they offer their communities. Despite increasing competition from independent diagnostic testing facilities and ambulatory surgical centers, the volume of hospital outpatient services per Medicare beneficiary has grown, indicating that access is strong. Another positive indicator is that quality-of-care measures are generally improving.

While most payment adequacy indicators are positive, Medicare margins remain low. The average Medicare margin, which was –5.9 percent in 2007, is projected to fall to –6.9 percent in 2009 (after accounting for payment policy changes scheduled to be in effect in 2010). While the average margin is negative, some hospitals are able to generate profits treating Medicare patients. Hospitals that break even or

In this section

- Are Medicare payments adequate in 2009?
- How should Medicare payments change in 2010?
- Indirect medical education adjustment

generate profits from Medicare patients tend to fall into two categories. First, teaching hospitals often generate profits on Medicare patients due to indirect medical education (IME) payments that exceed the indirect costs associated with teaching residents. Second, relatively efficient hospitals are able to cover the costs of caring for Medicare patients by keeping their costs lower than their peers' costs.

Access to capital was erratic in 2008. Bond offerings and construction started off at a record pace in January but froze in September 2008 due to an economy-wide freeze of the credit markets. The difficulties in accessing capital resulted from a sudden breakdown of the credit markets rather than a change in the level of Medicare payments. Recently, hospitals with robust fundamentals have been able to issue debt, but even financially sound hospitals face higher interest rates.

Despite appearances, record-breaking hospital construction in 2007 and negative Medicare margins in 2007 are not at odds. We note that a third factor—unusually high private-payer profit margins—can lead to more construction, higher hospital costs, and lower Medicare margins. In 2007, hospitals' non-Medicare profits and total (all payer) profits were at the highest levels in a decade. The data suggest that, when non-Medicare margins are high, hospitals face less pressure to constrain costs, costs rise, and Medicare margins tend to be low. Of course, not all hospitals had high private-payer profits; those with low levels of profit on their non-Medicare business face pressure to keep their costs down. We found that hospitals facing significant financial challenges in recent years (2004 through 2006) tended to have lower costs and hence higher Medicare margins in 2007.

A key question is whether Medicare payments are adequate to cover the costs of efficient providers. To explore this question, we have examined financial outcomes for a set of hospitals that consistently perform well on cost, mortality, and readmission measures. For these relatively efficient hospitals, we found that Medicare payments, on average, roughly equaled their Medicare costs.

Balancing the findings among different payment adequacy indicators, we conclude that an update equal to the projected increase in the market basket is appropriate for inpatient and outpatient services, with this update implemented concurrently with a quality improvement program. Given the mixed payment adequacy indicators, we believe a hospital's quality performance should determine whether its payments increase more or less than the market basket increase. Hospitals that perform well on quality measures could get a payment rate increase greater than the market basket, while those that perform poorly could get less than the market basket.

The Congress should increase payment rates for the acute inpatient and outpatient prospective payment systems in 2010 by the projected rate of increase in the hospital market basket index, concurrent with implementation of a quality incentive payment program.

Recommendation 2A-1

COMMISSIONER VOTES:
YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

In 2007, IME payments to teaching hospitals totaled \$6 billion. These payments exceed the estimated indirect costs associated with teaching residents. Therefore, we recommend a reduction in the IME adjustment equivalent to 1 percentage point to 4.5 percent per 10 percent increment in the resident-to-bed ratio; this adjustment would reduce the gap between Medicare IME payments and IME costs by roughly 30 percent. The dollars would be used to help fund a quality improvement program. ■

The Congress should reduce the indirect medical education adjustment in 2010 by 1 percentage point to 4.5 percent per 10 percent increment in the resident-to-bed ratio. The funds obtained by reducing the indirect medical education adjustment should be used to fund a quality incentive payment program.

Recommendation 2A-2

COMMISSIONER VOTES:
YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

Background

Hospitals provide Medicare beneficiaries with inpatient care for the diagnosis and treatment of acute conditions and manifestations of chronic conditions. They also provide ambulatory care through outpatient departments and emergency rooms. In addition, many hospitals provide home health, skilled nursing facility, psychiatric, and rehabilitation services. To be eligible for Medicare payment, short-term general and specialty hospitals must meet the program's conditions of participation and agree to accept Medicare rates as payment in full.

Medicare spending on hospitals

In 2007, Medicare spent \$107 billion on fee-for-service (FFS) inpatient care and \$29 billion on FFS outpatient care at general acute care hospitals (Table 2A-1). Acute inpatient and outpatient services represented more than 90 percent of Medicare spending on general acute care hospitals. Aggregate FFS spending growth slowed from 2002 to 2007 due to Medicare beneficiaries shifting from FFS Medicare to Medicare Advantage plans. However, the level of spending per FFS beneficiary continued to grow. From 2002 to 2007 Medicare inpatient spending per capita grew 18 percent, while outpatient spending per capita grew 47 percent. The higher growth in outpatient services reflects an ongoing shift of services from an inpatient to an outpatient setting and changes in available technology.

Medicare's payment systems for inpatient and outpatient services

This section provides a brief overview of the acute inpatient and outpatient prospective payment systems (PPSs), which have a similar basic construct. Each has a base rate modified for differences in type of case or service as well as geographic differences in wages. However, each has a somewhat different set of payment adjustments.

Acute inpatient payment system

Medicare's acute inpatient PPS (IPPS) pays hospitals a predetermined amount for most discharges. The payment rate is the product of a base payment rate and a relative weight that reflects the expected costliness of cases in a particular clinical category compared with the average of all cases. The labor-related portion of the payment rate is further adjusted by the hospital wage index to account for differences in area wages. Payment rates are updated annually.

Until 2008, patient classification was based on the diagnosis related group (DRG) system. In 2008, CMS replaced the DRG system and its 538 groups with Medicare severity DRGs (MS-DRGs) with 745 groups. In the MS-DRG system, patients are assigned to 335 base DRGs that reflect similar principal diagnoses and procedures. Most base DRGs are further subdivided into groups representing patients with no complication or comorbidity (CC), patients with one or more nonmajor CCs, or patients with one or more major CCs.

**TABLE
2A-1**

Growth in Medicare inpatient and outpatient spending

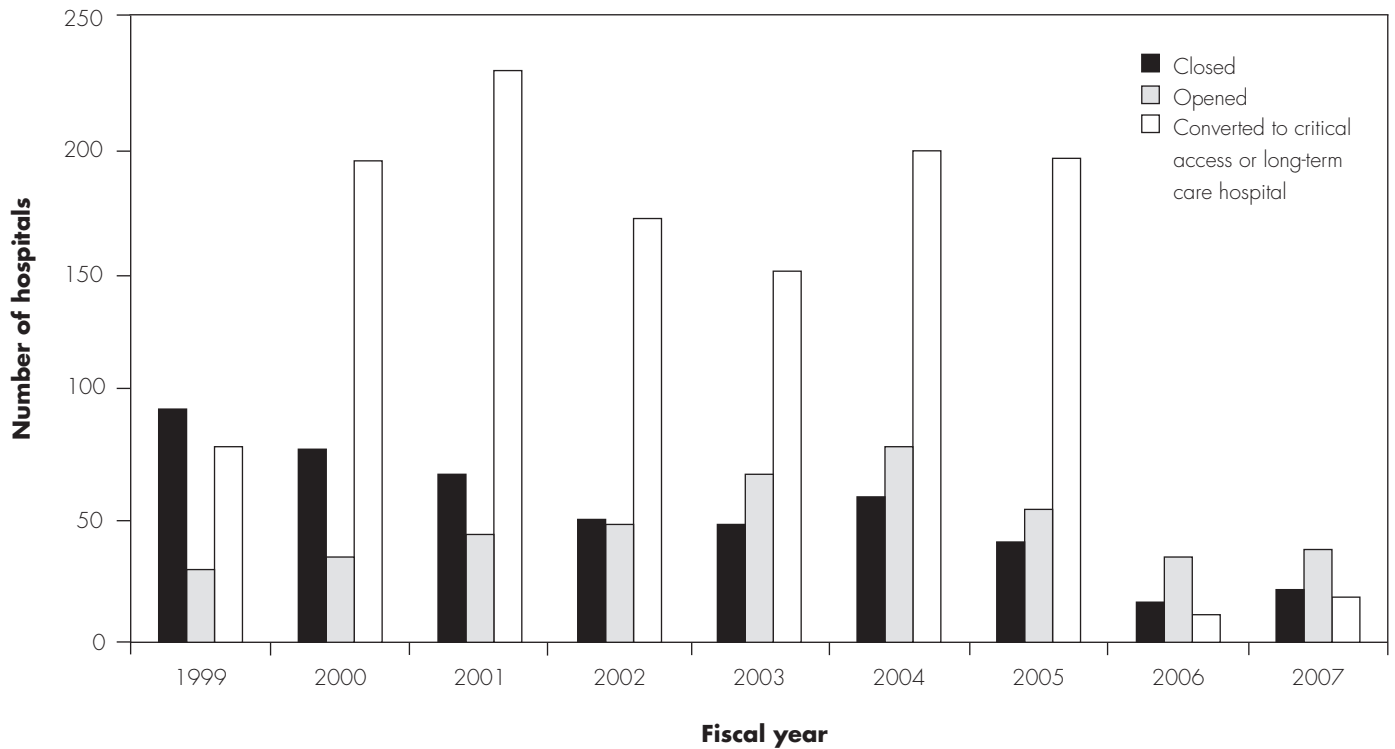
Type of spending	2002	2004	2006	2007	Percentage change 2002-2007
Hospital inpatient spending					
Total FFS payments (in billions)	\$90	\$100	\$107	\$107	19%
Payments per FFS enrollee	2,610	2,780	3,010	3,080	18
Hospital outpatient spending					
Total FFS payments (in billions)	19	24	28	29	50
Payments per FFS enrollee	600	710	840	880	47

Note: FFS (fee-for-service). Hospital spending includes all hospitals covered by Medicare's inpatient and outpatient prospective payment systems (PPSs) and critical access hospitals. Maryland hospitals are excluded. The number of overall Medicare enrollees grew from 2002 to 2007, but the number of FFS enrollees was relatively flat over that time due to the expansion of the Medicare Advantage program. For the purposes of calculating payments per enrollee we identified populations of enrollees eligible for inpatient (Part A) and outpatient (Part B) coverage.

Source: MedPAC analysis of CMS hospital cost reports, MedPAR files, and PPS impact files.

**FIGURE
2A-1**

More hospitals opened than closed since 2002



Source: MedPAC analysis of Provider of Services file from CMS.

The acute IPPS includes adjustments to payments for certain cases and for hospitals with specific characteristics. The indirect medical education (IME) adjustment is made to account for the higher costs of patient care in teaching hospitals. Hospitals that treat an unusually large share of low-income patients receive disproportionate share hospital payments. Payments are reduced for certain cases with unusually short stays that are transferred to another hospital or a post-acute care setting and for hospitals that do not report specified quality data. Outlier payments are made for cases with unusually high costs, and temporary add-on payments are made for cases using specified new technologies. Special payments are also made to certain rural hospitals (sole community and Medicare-dependent hospitals). Hospitals with up to 25 beds may qualify for cost-based payment as critical access hospitals (CAHs); these hospitals are excluded from the IPPS.

A more detailed description of the acute IPPS can be found at http://www.medpac.gov/documents/MedPAC_Payment_Basics_08_hospital.pdf.

Hospital outpatient payment system

The outpatient PPS pays hospitals a predetermined amount per service. CMS assigns each outpatient service to 1 of approximately 800 ambulatory payment classification (APC) groups. Most APCs have a relative weight based on their median cost of service compared with the median cost of a midlevel clinic visit. A conversion factor translates relative weights into dollar payment amounts. A more detailed description of the outpatient PPS can be found at www.medpac.gov/documents/MedPAC_Payment_Basics_08_OPD.pdf.

Are Medicare payments adequate in 2009?

Each year, the Commission makes payment update recommendations for hospital inpatient and outpatient services for the coming year. In our update framework, we examine whether payments for the current year (2009)

**TABLE
2A-2****The share of hospitals offering specialized care often grew**

Type of specialized care	2000	2004	2005	2006	Percentage point change 2000-2006
Palliative care program	14%	25%	29%	31%	17%
Magnetic resonance imaging	54	60	63	65	11
Hemodialysis	22	30	31	31	9
Positron emission tomography	8	18	16	16	8
Orthopedic	N/A	67	69	72	5*
CT scanner	87	88	88	90	3
Trauma center (level 1 to 3)	32	33	34	35	3
Open heart surgery	22	23	25	25	3
Bariatric surgery/weight control	N/A	20	21	22	2*
Cardiac catheterization	38	36	39	40	2
Psychiatric services	34	32	32	32	-2
Urgent care center	27	26	25	24	-3

Note: N/A (not available), CT (computed tomography). Data are for services provided directly by community hospitals, which include critical access hospitals in addition to those covered by the acute inpatient and outpatient prospective payment systems.

* Percentage point change calculated from 2004 to 2006, because data were not available for 2000.

Source: American Hospital Association annual survey of hospitals.

are adequate to cover the costs efficient hospitals incur to provide high-quality care and then how much providers' costs will change in the coming year (2010). To make these judgments, we consider beneficiaries' access to care, changes in the volume of services, changes in the quality of care, hospitals' access to capital, and the relationship of Medicare's payments and hospitals' costs. In addition, the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA) requires that we consider the efficient provision of services in recommending updates. To fulfill this mandate, we explore identifying a set of relatively efficient (high quality and low cost) hospitals and compare cost and quality metrics of this set of hospitals with those for other general acute care hospitals.

Beneficiaries' access to care remains positive, as hospital capacity has generally grown

We assess beneficiaries' access to care through measures of the number of hospitals participating in the Medicare program and the proportion of hospitals offering certain specialty and outpatient services. In general, we find that hospitals' capacity to provide most services is improving.

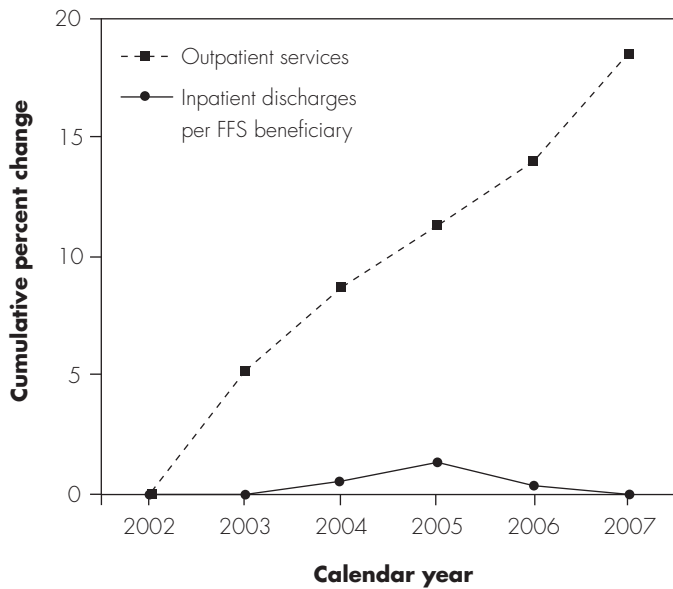
In each year from 2003 through 2006, more Medicare-participating hospitals opened than closed (Figure 2A-1).

More than 1,100 hospitals converted to CAH status between 1998 and 2007 (of 1,296 converting since the beginning of the CAH program). But the conversion rate has slowed to less than 10 per year since 2006 because of new legislation that required all new CAHs to be at least 35 miles by primary road or 15 miles by secondary road from another hospital; the distance requirement does not affect existing CAHs. Another 125 hospitals have converted to long-term care hospitals since 1999, including 12 in the past year. These facilities are no longer paid under the acute IPPS.¹

Not only has the number of hospitals grown in recent years, so have hospital service offerings. Our analysis of 12 specialized hospital services from 2000 to 2006 found that the share of hospitals providing each service increased in 10 of the 12 categories and decreased for psychiatric services and urgent care services from 2000 to 2006 (Table 2A-2). The proportion of hospitals offering trauma center services (level 1, 2, or 3) grew from 32 percent to 35 percent, even though trauma services are often considered unprofitable for hospitals. Other data sources indicate that roughly 90 percent of all hospitals offered outpatient and emergency services from 2000 through 2006 (CMS 2008a). The decline in psychiatric services is of concern and is an issue we will pursue in future research.

**FIGURE
2A-2**

Medicare outpatient services grew while hospital inpatient discharges per FFS enrollee were fairly constant from 2002 to 2007



Note: FFS (fee-for-service). Data are for short-term general and surgical hospitals, including critical access and children's hospitals.

Source: MedPAC analysis of MedPAR and hospital outpatient claims data from CMS.

Changes in volume of services

We use the number of discharges per FFS beneficiary as an indicator of inpatient volume, while we measure outpatient volume by the number of services per FFS beneficiary, as the outpatient PPS generally pays for individual services.² Under these measures, Medicare inpatient volume has remained flat, in part due to the shift of patients to outpatient settings in recent years. In contrast, outpatient services per beneficiary have grown, even as hospital competitors, such as independent diagnostic testing facilities and ambulatory surgical centers, increasingly provide these services.

Inpatient volume

Medicare FFS discharges per beneficiary showed little change from 2002 through 2007 (Figure 2A-2). Hospitals have been able to maintain their inpatient volumes despite a shift of many types of surgical procedures to outpatient settings. For example, services such as pacemaker implantation that once were performed only as an inpatient service are now often delivered in outpatient settings, which suggests that hospitals have been able to replace

inpatient cases lost to outpatient settings with additional inpatient discharges per beneficiary. While Medicare admissions per beneficiary have remained flat, the number of inpatient days has declined due to a steady decline in Medicare patients' length of stay.

Outpatient volume

From 2002 through 2007, the volume of outpatient services per FFS beneficiary increased steadily, averaging 3.5 percent per year during that period (Figure 2A-2).³ Our analysis of claims data shows that much of the overall growth in service volume from 2002 to 2007 was due to increases in the number of services per beneficiary receiving outpatient care rather than to increases in the number of beneficiaries served.

Changes in quality of care

Most quality-of-care measures continue to show improvement. According to the Commission's analysis, in-hospital and 30-day mortality rates continued to decline from 2004 through 2007. In addition, most patient safety and process metrics are improving.

To assess quality in hospitals, we examined in-hospital mortality and mortality within 30 days after admission to the hospital as well as the incidence of potentially preventable adverse events resulting from inpatient care (referred to as patient safety indicators, or PSIs). The Agency for Healthcare Research and Quality (AHRQ) developed the measures of mortality and adverse events we use in our analysis. AHRQ chose these indicators after discussions with clinical and measurement experts and after empirical testing to explore the frequency and variation of the indicators and their potential biases. We calculated the mortality rates and PSIs based on all Medicare inpatient claims with specified conditions or procedures in CMS's Medicare Provider Analysis and Review (MedPAR) claims data files. We used an AHRQ methodology to risk-adjust the MedPAR data when calculating the mortality and PSI rates.

From 2004 through 2007, risk-adjusted in-hospital and 30-day mortality declined for each of the eight conditions or procedures we measured: pneumonia, stroke, acute myocardial infarction, heart failure, gastrointestinal hemorrhage, coronary artery bypass graft, craniotomy, and abdominal aortic aneurysm repair. In-hospital mortality rates provide a measure of hospital performance on inpatient care. The 30-day rate is somewhat more difficult to interpret strictly as inpatient quality, because it may also reflect outpatient and post-acute care experienced

after hospital discharge. However, risk-adjusted 30-day mortality has the advantage of reflecting how well a hospital works with post-acute providers to ensure a smooth and safe transition from the hospital.

The rates of adverse events improved for five of the eight conditions we monitor (Table 2A-3). The most common adverse event was decubitus ulcer (bed sores), for which the risk-adjusted rate for Medicare patients in our sample improved slightly from 2004 to 2007. The second most common event was postoperative pulmonary embolism or deep vein thrombosis, which are rare but life-threatening complications of surgery that can often be prevented with appropriate clinical care. Their risk-adjusted rate did not change significantly between 2004 and 2007. The changes in patient safety measures should be viewed with caution given that changes in coding practices and not just changes in the underlying quality of care could affect the reported rate (AHRQ 2006).

The Joint Commission's 2008 annual report on quality and safety indicates that hospitals on average have improved scores on all reported process measures in recent years (Joint Commission 2008). For example, the Joint Commission found improving rates of beta blocker use and smoking cessation advice for heart attack patients. While process metrics show progress, the Joint Commission notes there is room for further improvement.

CMS has made significant progress over the past four years in gathering and publishing a broadening array of hospital quality measures on the Medicare Hospital Compare website (CMS 2008b). The measures that have been in use the longest evaluate hospitals' performance of specific processes of care in selected clinical areas, such as treatment of heart attack (acute myocardial infarction), heart failure, and control of surgical infections. In the past year, CMS for the first time published 30-day mortality rates for certain conditions as well as overall patient satisfaction scores for care provided by hospitals. As more data accumulate on these and other measures CMS regularly collects—including rates of hospital-acquired conditions—we will seek to incorporate them into our annual assessment of hospital performance.

Hospitals' access to capital

Access to capital allows hospitals to maintain and modernize their facilities. If hospitals were unable to access capital, it might in part reflect problems with the adequacy of Medicare payments, as Medicare provides about 30 percent of hospital revenues. This year, because

**TABLE
2A-3**

Patient safety indicators are mostly improving

Indicator	Change in rate 2004 to 2007	Events 2007
Decubitus ulcer	Better	137,362
Postoperative PE or DVT	No difference	44,724
Puncture/laceration	No difference	30,773
Infection due to medical care	Better	15,643
Postoperative respiratory failure	Better	22,568
Iatrogenic pneumothorax	Better	6,788
Postoperative hemorrhage	Better	8,257
Postoperative sepsis	No difference	6,980

Note: PE (pulmonary embolism), DVT (deep vein thrombosis). "Better" indicates that the risk-adjusted rate per 10,000 eligible discharges has decreased by a statistically significant amount using a p=0.01 criterion. "No difference" indicates that the difference is not statistically significant using a p=0.01 criterion. Reported events are not strictly comparable to earlier MedPAC analyses (MedPAC 2008) due to evolution of the risk adjuster and changes in which patients are excluded from the set of eligible cases.

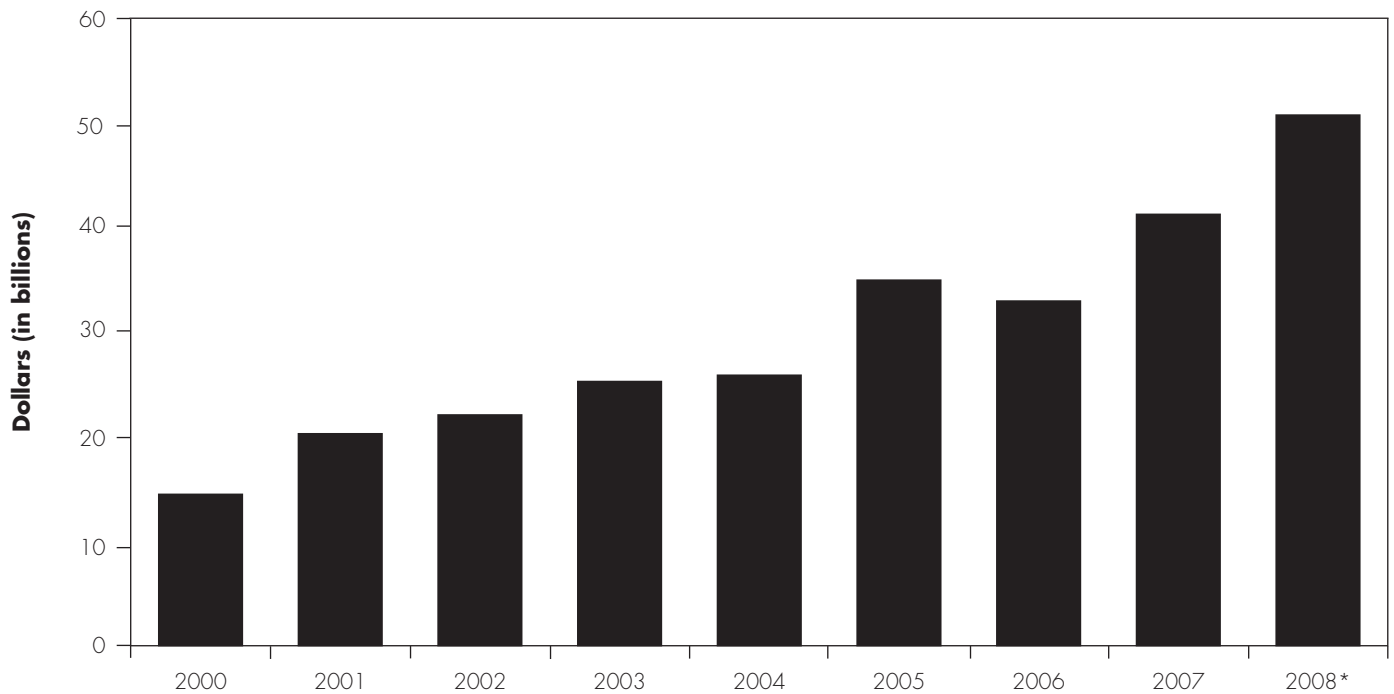
Source: MedPAC analysis of CMS data using Agency for Healthcare Research and Quality risk-adjustment method.

of the extraordinary conditions in the credit markets, access to capital may not be a particularly good indicator of Medicare payment adequacy. Recent difficulties in accessing capital result from a sudden economy-wide breakdown of the credit markets rather than from any change in the level of Medicare hospital payments. For example, health care municipal bond issuances reached \$24.7 billion in the second quarter of 2008 (a level not seen since 1990), but then the market essentially froze in late September (*Modern Healthcare* 2008). Virtually no health care entities issued municipal bonds until late October. The lack of access to capital in late September through most of October was a result not of changes in Medicare payments but of conditions in the credit markets. By November 2008, hospital municipal bond offerings resumed, but the average interest rate had increased from 6.0 percent at the end of August 2008 to 8.5 percent by December 2008 for A-rated hospital municipal bonds (Cain Brothers 2008a, Cain Brothers 2008b).

Through most of 2008, municipal bond issuances were quite high. Figure 2A-3 (p. 54) shows that, through early November, issuances exceeded \$50 billion. Hospitals used much of the funding to refinance auction rate debt (a type of variable rate debt) with longer term fixed-rate bonds. While hospitals with robust fundamentals are able to issue

**FIGURE
2A-3**

Hospital tax-exempt bond issuances grew into 2008



Note: *Data for 2008 are for January 1 through November 4.

Source: Thomson Financial 2008.

debt, even financially sound hospitals face higher interest rates than last year (Moody's 2008).

Hospitals still have access to lines of credit from banks, but some banks' creditworthiness and willingness to lend may be in question because of conditions in the larger credit markets. In addition, declines in the debt and equities markets will lower the value of hospitals' investment portfolios, which may affect capital expenditures. As a result of higher interest rates and economic uncertainty, some construction projects may be delayed. Therefore, we do not expect the record-breaking level of construction seen in 2007 to continue into 2009 (Figure 2A-4). In sum, access to capital in 2009 is difficult to predict, but it is generally agreed that the cost of capital will be higher in 2009 than in early 2008.

Payments and costs for 2009

In assessing payment adequacy, the Commission also considers the estimated relationship between Medicare payments and hospitals' costs for furnishing care to Medicare patients in the current year, fiscal year 2009. We

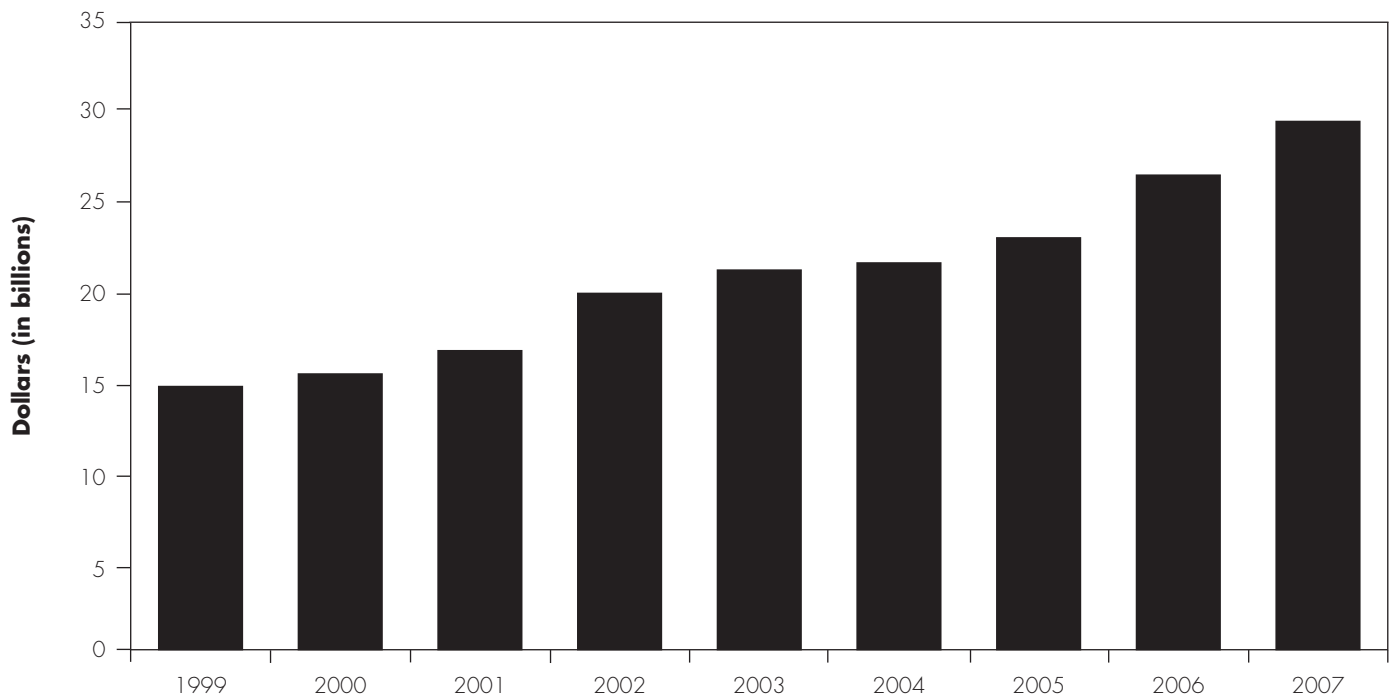
assess the adequacy of Medicare payments for the hospital as a whole, and thus our indicator of the relationship between payments and costs is the overall Medicare margin. This margin includes payments and costs for the six largest services that hospitals provide to Medicare patients plus graduate medical education. We take this approach because hospitals allocate large amounts of overhead across service lines, particularly between inpatient and outpatient care. Only by combining data for all major services can we estimate Medicare costs without the influence of how overhead costs are allocated.

Trend in the overall Medicare margin

The overall Medicare margin has trended downward since 1997 and has been negative since 2003 (Figure 2A-5, p. 56).⁴ From 2006 to 2007, the margin fell from -4.7 percent to -5.9 percent, the lowest level we have recorded. The drop in the overall margin parallels that in the inpatient margin as inpatient services account for about three-quarters of hospitals' Medicare revenues. Overall Medicare margins have dropped as per case costs have grown faster than input prices and payment updates.

**FIGURE
2A-4**

Spending on hospital construction grew through 2007



Note: Spending is for nonfederal hospital construction, deflated to 2007 dollars using the McGraw-Hill construction cost index.

Source: Census Bureau. <http://www.census.gov/const/www/c30index.html>.

The gap between the overall Medicare margin and the Medicare inpatient margin has narrowed over time. In part this is due to a narrowing in the difference between the Medicare inpatient margin and the outpatient margin (Table 2A-4, p. 56). The inpatient margin has fallen, while the outpatient margin has held relatively steady since 2003. Outpatient volume growth on average has been greater than inpatient volume growth, resulting in increased economies of scale for outpatient services and lower cost growth.

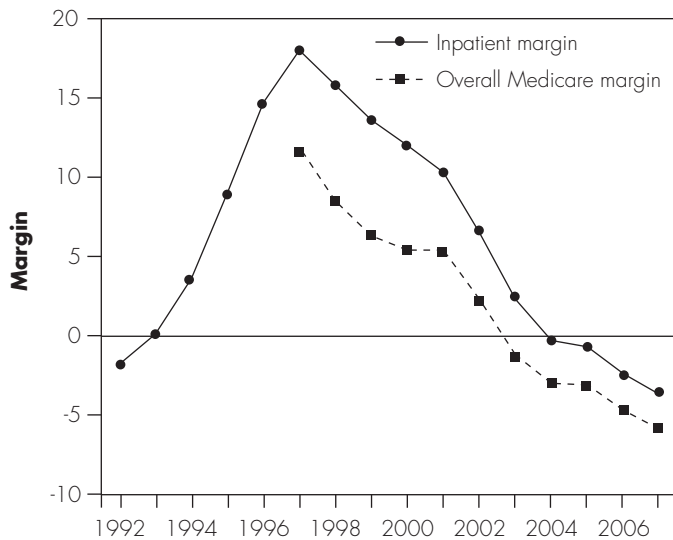
The margins in Table 2A-4 include only hospitals in the prospective payment system and exclude CAHs. Conversions to CAH status from 2003 to 2006 have resulted in some hospitals with relatively low margins moving out of the PPS (to cost-based reimbursement). CAH conversions coupled with certain provisions of the Deficit Reduction Act of 2005 (DRA) have helped to push rural hospitals' overall Medicare margins above those of urban hospitals (Table 2A-5, p. 57). The DRA provisions raised rural hospitals' payments by allowing small rural Medicare-dependent hospitals (MDHs) to use

a more recent and higher base year (2002) for calculating their hospital-specific rate and by increasing the cap on disproportionate share payments to all small rural hospitals. Medicare inpatient payments per case increased an average of 9 percent for MDHs in 2007 compared with an average increase of 2.9 percent for all PPS hospitals.

The Medicare margin for major teaching hospitals went down a little more in 2007 than margins for other hospitals in part due to a small reduction in the IME adjustment. Teaching hospitals, however, continue to have much higher overall Medicare margins than the average PPS hospital. In large part, this is due to the extra payments they receive through the IME and disproportionate share adjustments. Commission analysis has shown that both these adjustments provide payments substantially larger than the estimated effects that teaching intensity and service to low-income patients have on hospitals' average costs per discharge (MedPAC 2006). Nonteaching hospitals, most of which are in urban areas, had the lowest Medicare margins of any hospital group.

**FIGURE
2A-5**

**Overall Medicare and
Medicare inpatient margins**



Note: A margin is calculated as payments minus costs, divided by payments; margins are based on Medicare-allowable costs. Analysis excludes critical access hospitals. Medicare inpatient margins include services covered by the acute inpatient prospective payment system. Overall Medicare margin covers acute inpatient, outpatient, hospital-based home health and skilled nursing facility (including swing bed), and inpatient psychiatric and rehabilitation services, plus graduate medical education.

Source: MedPAC analysis of Medicare Cost Report file from CMS.

CAHs, which are not included in our margin calculations, receive under their cost-based reimbursement system 1 percentage point more than costs for inpatient, outpatient, and swing bed post-acute services. These hospitals account for about one-quarter of all Medicare revenue rural hospitals receive. If we include CAHs in our overall margin calculation, the overall Medicare margin for rural hospitals in 2007 would be 1.4 percentage points higher, or -4.2 percent. For all acute care hospitals, the margin would be 0.2 percentage point higher, or -5.7 percent.

Projected margins under current 2010 payment policies

We estimate that the overall Medicare margin in 2009 (given 2010 policies) would be -6.9 percent, 1 percentage point lower than in 2007.⁵ Our projection reflects the effects of policy changes occurring between 2007 and 2010. These policy changes are summarized in the text box (pp. 58-59). Some policy changes will increase payments—full market basket updates hospitals received in both 2008 and 2009, for example—while others will

reduce payments—for instance, elimination of the 3 percent add-on to urban hospitals’ capital payment rates in 2008. The principal factor contributing to lower projected margins in 2009 than in 2007 is our expectation that hospital costs will continue to rise faster than payments and input price inflation. In 2008 and 2009, we expect costs per case will increase on average slightly more than 4 percent per year. The next section on cost growth discusses some of the reasons why we believe costs will continue to rise faster than payments.

Hospital cost growth has moderated but remains above input price inflation

Cost growth has varied substantially over the past 10 years. After relatively low rates of cost growth in the 1990s, the period from 2001 through 2003 saw rapid cost growth due to rising hospital profitability and fierce competition for nurses and other employees. Growth in costs per discharge peaked at 8.1 percent in 2002. In recent years, cost growth per unit of service has stabilized to between 4 percent and 5 percent per year (Table 2A-6). The 4.6 percent increase in costs per unit of service in 2007 was above the rate of increase in Medicare payments.

Looking to 2008, we expect that the rate of growth in hospital costs per unit will have remained slightly above 4 percent. While 2008 Medicare cost report data are not available, we have partial year data from the Census Bureau through June 2008 and from certain hospital systems with publicly traded stock or bonds for the nine months ending in September 2008.⁶ These data sources suggest that 2008 cost growth remained slightly above 4 percent.

**TABLE
2A-4**

Hospital Medicare margins

Measure	2003	2004	2005	2006	2007
Inpatient	2.3%	-0.3%	-0.7%	-2.4%	-3.7%
Outpatient	-11.4	-10.7	-9.0	-10.9	-11.8
Overall Medicare	-1.2	-3.0	-3.1	-4.7	-5.9

Note: Data are for all hospitals covered by Medicare acute inpatient prospective payment system in 2007. A margin is calculated as payments minus costs, divided by payments; margins are based on Medicare-allowable costs. Overall Medicare margin covers acute inpatient, outpatient, hospital-based skilled nursing facility (including swing bed) and home health, and inpatient psychiatric and rehabilitation services, plus graduate medical education.

Source: MedPAC analysis of Medicare Cost Report file from CMS.

**TABLE
2A-5**

**Overall Medicare margins
by hospital group**

Hospital group	2003	2004	2005	2006	2007
All hospitals	-1.2 %	-3.0%	-3.1%	-4.7%	-5.9%
Urban	-0.8	-3.0	-3.1	-4.7	-6.0
Rural	-3.9	-3.3	-2.8	-4.8	-5.6
Major teaching	7.1	4.9	4.9	2.9	1.1
Other teaching	-1.9	-3.4	-3.8	-5.4	-6.4
Nonteaching	-5.2	-7.0	-6.8	-8.4	-9.3

Note: Data are for all hospitals covered by the Medicare acute inpatient prospective payment system in 2007. A margin is calculated as payments minus costs, divided by payments; margins are based on Medicare-allowable costs. Overall Medicare margin covers acute inpatient, outpatient, hospital-based skilled nursing facility (including swing bed) and home health, and inpatient psychiatric and rehabilitation services, plus graduate medical education.

Source: MedPAC analysis of Medicare Cost Report file, MedPAR, and prospective payment system impact file from CMS.

Looking forward to 2009, there is a significant amount of uncertainty regarding the economy. Hospitals have faced losses on their investment portfolios and may face some reduction in demand for services as the economy contracts. There are anecdotal reports that this situation has already resulted in increased hospital cost control efforts, which may slow cost growth (Abelson 2008, AHA 2008). On the other hand, costs may increase more rapidly because of other factors, such as the need to replenish hospital employees' defined benefit pension plans that have declined in value due to stock market losses, declines in the volumes of discretionary surgeries as the economy

contracts, and higher debt service costs caused by higher interest rates. Given that some forces push costs downward and others push costs upward, there is no clear reason to assume current cost trends will change substantially. Therefore, in our projections we assume that hospitals will report unadjusted cost growth slightly above 4 percent in 2008 and 2009.

Factors influencing cost growth and financial performance

For the past several years, Medicare margins have declined at the same time as hospitals' total (all payer) profitability has risen. The result is that through 2007 some payment adequacy indicators such as capital spending and service volume strengthened while Medicare margins declined. This inverse relationship appears to result from the effect of hospitals' revenues on their costs—that is, more revenue leads to more spending and higher costs. When hospital profits from private payers rise, hospital spending also rises, and Medicare margins fall.

To examine the effect of hospitals' revenue on costs, we explored the relationship between non-Medicare profits and costs for the industry as a whole over the past 20 years. Then we contrasted the costs and Medicare margins of hospitals facing the most financial pressure (low non-Medicare profits) with the costs of hospitals facing the least financial pressure (high non-Medicare profits) in recent years.

The past 20 years: financial pressure and cost growth

The level of private-payer profits has been cyclical. During the first period (1986 through 1992), most insurers still paid hospitals on the basis of their charges, with little price negotiation or selective contracting. With limited pressure

**TABLE
2A-6**

Cost growth remains in the 4 percent to 5 percent range

Type of cost	Unadjusted cost growth			Case-mix-adjusted cost growth		
	2005	2006	2007	2005	2006	2007
Inpatient costs per discharge	5.1%	5.3%	4.3%	4.2%	4.5%	4.7%
Outpatient costs per service	4.6	2.6	5.6	2.6	3.1	4.1
Weighted average	5.0	4.7	4.6	3.9	4.3	4.6

Note: The results are adjusted to account for changes in hospitals' case mix (complexity of services provided) as measured by diagnosis related groups for inpatient services and ambulatory patient classifications for outpatient services. Analysis excludes critical access hospitals. The weighted average is based on hospitals' inpatient and outpatient Medicare costs.

Source: MedPAC analysis of Medicare Cost Report and claims files from CMS.

Policy changes between 2007 and 2010 increase some payments and decrease others

A number of payment policy changes, including some scheduled to be implemented in 2010, affect our projection of the 2009 margin under 2010 policy. These changes affect Medicare's payments for acute inpatient and outpatient services as well as hospital-based post-acute care services, including home health, skilled nursing facility, and inpatient rehabilitation services. The provisions affecting inpatient and outpatient payments are summarized below; provisions affecting the post-acute services are described in other sections of this report.

Inpatient payments

CMS made major changes to the acute inpatient prospective payment system (PPS) in 2008 and 2009. In response to a Commission recommendation, CMS introduced a new patient classification system that better captures severity-of-illness differences among patients and hospitals. Beginning in 2008, CMS phased in Medicare severity diagnosis related groups (MS-DRGs), replacing DRGs as the method for grouping patients in determining per discharge payments. Payments are based entirely on MS-DRGs in 2009. CMS and the Commission anticipate that hospitals will respond to the incentives of the MS-DRG system by improving medical records' documentation and diagnosis coding, which will result in assignment of cases to higher weighted MS-DRGs. Because this assignment will increase payments without an accompanying increase in resources used, it will result in an unintended increase in payments. CMS planned to reduce the PPS payment rates in 2008 and 2009 by

1.2 percent and 1.8 percent, respectively, to offset the effects of coding improvements that were projected by the CMS Office of the Actuary. However, the TMA, Abstinence Education, and QI Programs Extension Act of 2007 (TMA) mandated a schedule for these reductions of 0.6 percent in 2008 and an additional 0.9 percent in 2009. To the extent that the TMA did not fully account for coding improvements, the Secretary of Health and Human Services (HHS) is required by law to reduce hospital payments in 2010, 2011, and 2012 to ensure that adoption of the MS-DRGs is budget neutral. Likewise, if the effect of coding improvement is less than the adjustment mandated by the TMA, the Secretary of HHS is required to increase hospital payments in 2010, 2011, and 2012 to ensure that the transition to MS-DRGs did not increase or decrease Medicare expenditures.

Hospitals may qualify for reclassification to a different labor market for purposes of the wage index. Section 508 of the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 gave eligible hospitals an opportunity for a one-time reclassification to a different labor market and allowed this change to increase their payments. The provision was scheduled to expire at the end of fiscal year (FY) 2007; however, the Medicare, Medicaid, and SCHIP Extension Act of 2007 extended Section 508 through the end of FY 2008 and the Medicare Improvements for Patients and Providers Act of 2008 (MIPPA) extended it through the end of FY 2009.

(continued next page)

from private payers, hospital margins on private-payer business increased rapidly. In the mid-1990s, HMOs and other private insurers began to negotiate much harder with hospitals, and most insurers switched to paying for inpatient services on the basis of DRGs or flat per diem amounts for broad types of services. In the second period (1993 through 1999) the payment-to-cost ratio for private payers declined by 16 percentage points (Figure 2A-6, p. 60). However, by 2000, hospitals had regained the upper hand in price negotiations due to hospital consolidations

and consumer backlash against managed care. In the third period (2000 to 2007), private-payer rates rose rapidly and hospitals' payment-to-cost ratio consequently increased more than 16 percentage points. In 2007, private payers on average paid hospitals more than 132 percent of their costs (Figure 2A-6).

Due to strong private-payer payments, all-payer margins for hospitals reached 6.0 percent in 2007, the highest level recorded since 1997. In 1997, Medicare was a major contributor to hospitals' record profits. In 2007, private

Policy changes between 2007 and 2010 increase some payments and decrease others (cont.)

CMS implemented two Deficit Reduction Act of 2005 (DRA) provisions intended to improve hospital quality of care that affected payments in 2008 and 2009. The DRA mandated that failure to submit valid quality data from 2007 would result in a 2.0 percent reduction in payment for 2008. However, virtually all hospitals paid under the inpatient PPS submitted the required data and thus avoided any penalty. CMS also implemented a mandate to identify reasonably preventable hospital-acquired conditions with high cost or volume that, as secondary diagnoses, would result in assignment to a higher paying DRG. In 2009, cases with any one of five designated conditions do not receive the extra payment of the higher weighted DRG if the condition is acquired after admission and no other qualifying secondary diagnosis is present. However, because in the vast majority of cases another secondary diagnosis is present, we expect this provision to have little impact on payments.

Under the inpatient PPS, separate payments are made for operating and capital costs. For 2008, CMS eliminated a 3 percent add-on to capital payments for hospitals in large urban areas. It also began a phaseout of the indirect medical education adjustment to capital payments, with a 50 percent reduction in 2009 and elimination in 2010.

Outpatient payments

Currently, rural hospitals with 100 or fewer beds receive hold-harmless outpatient payments. Payment rates for these hospitals are based on the higher of

current PPS rates or the hospital's historical payment-to-cost ratio. MIPPA extended hold-harmless payments through 2009 to small rural and sole community hospitals, but aggregate outpatient payments are still expected to decline in 2010 after the hold-harmless provision expires.

Rural hospitals

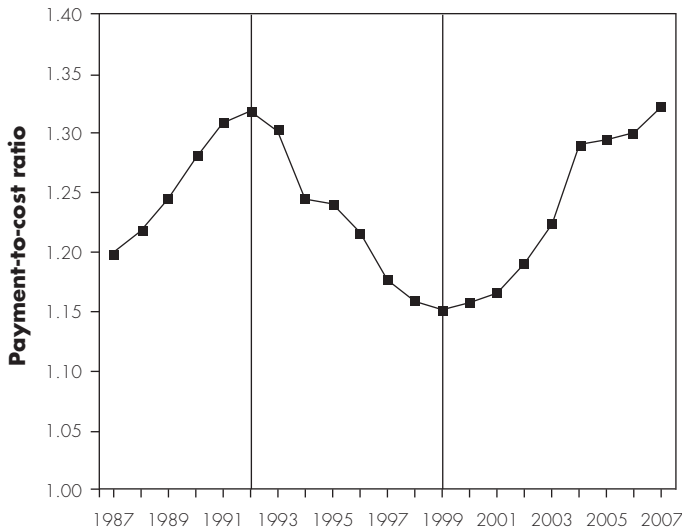
The Congress has established several special payments for rural hospitals that continue to evolve and affect Medicare spending. In 2007, CMS implemented provisions of the DRA affecting payment to Medicare-dependent hospitals (MDHs). These provisions increased the adjustment to MDH payments from 50 percent to 75 percent of the difference between their hospital-specific rate and the federal rate and allowed a 2002 base year for calculating payments. The DRA also increased the cap on disproportionate share payments made to MDHs. At the time of enactment, CMS estimated these policies would increase payments to MDHs in fiscal year 2007 by 14 percent. Effective January 1, 2009, MIPPA rebased payments to sole community hospitals (SCHs) to allow use of the FY 2006 base year for calculating the hospital-specific rate.⁷ CMS actuaries estimated that this policy will add \$140 million in spending for the portion of FY 2009 it will be in effect, and \$550 million for all of FY 2010 (CMS 2008c). The MDH and SCH provisions will significantly increase rural profit margins given that 48 percent of rural inpatient PPS hospitals are SCHs and another 16 percent are MDHs. ■

payers and other revenue sources contributed to hospitals' record profit margins despite the relatively poor showing on Medicare business. As we noted earlier, hospitals' private-payer payment-to-cost ratios increased more than 16 percentage points in the last seven years, contributing to more robust all-payer margins. While insurers appear to be unable or unwilling to "push back" and restrain payments to providers, they have been able to pass costs on to the purchasers of insurance and maintain their profit margins (*Boston Globe* 2008, McKinsey 2008, Sellers 2008).

Hospital cost growth has moved in parallel with margins on private-payer patients. From 1987 through 1992 profits from private payers grew, and then from 1987 through 1993 hospitals' rate of cost growth was above the rate of input price inflation (Figure 2A-7, p. 60). Because of managed care restraining private-payer payment rates, hospitals' rate of cost growth was below input price inflation from 1994 through 2000. However, from 2001 through 2007, after private-payer profits increased, hospitals' rate of cost growth was higher than the rate

FIGURE 2A-6

Three distinct periods in the private payer payment-to-cost ratio



Note: Private payer payment-to-cost ratios do not include Medicare Advantage patients.

Source: MedPAC analysis of data from the American Hospital Association annual survey of hospitals.

of increase in the market basket of input prices (Figure 2A-7). Thus, Medicare margins have declined.

Hospital-level financial pressure and hospital costs The effect of financial pressure on hospitals' costs is not only evident over time, it is also evident when comparing hospitals facing differing levels of financial pressure to constrain costs. Some hospitals have strong profits on non-Medicare services and investments and are under little pressure to constrain their costs. Other hospitals, with thin profits on non-Medicare services, face losses (and possibly closure) if they do not constrain costs and generate profits on Medicare patients. To determine whether financial pressure leads to lower costs, we grouped hospitals into three levels of financial pressure: high, medium, and low. We then tested whether hospitals under high levels of financial pressure from 2002 to 2006 ended up with lower standardized inpatient costs per discharge in 2007 than hospitals under medium and low levels of financial pressure.

We defined high-pressure hospitals as those that met two criteria:

- Median non-Medicare profit margins from 2002 to 2006 of 1 percent or less. Non-Medicare margins

reflect the sum of net profit (or loss) on private-payer, Medicaid, self-pay, and charity cases as well as nonpatient revenues and costs.

- Net worth would have grown by less than 1 percent per year from 2002 to 2006 if the hospital's Medicare profits had been zero. This situation would indicate that the hospital depended on Medicare profits to grow its net worth.

We defined low-pressure hospitals as those that could grow their net worth even if they suffer Medicare losses. Low-pressure hospitals met the following two criteria:

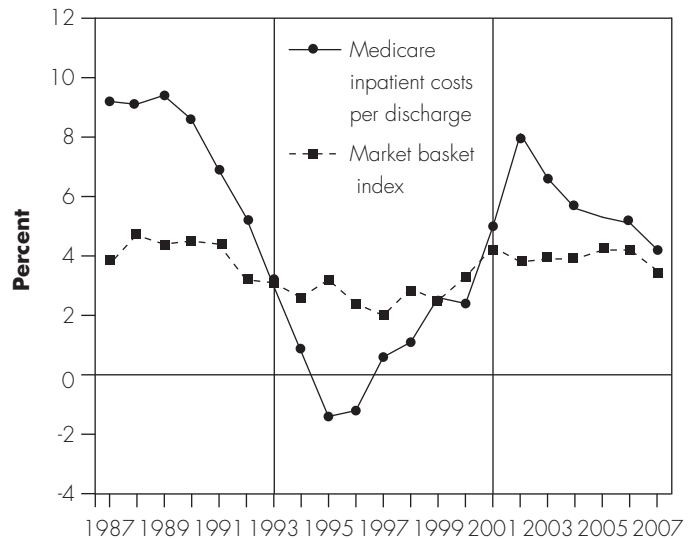
- Median non-Medicare margins from 2002 to 2006 were greater than 5 percent.
- A net worth that would have grown by more than 1 percent per year if its Medicare profits were zero. This situation would indicate that the hospital did not depend on Medicare profits to grow its net worth.

We defined medium-pressure hospitals as all other hospitals.

In general, we found that hospitals under low financial pressure had higher standardized costs per discharge (\$6,400) than hospitals under high financial pressure (\$5,800) in 2007 (Table 2A-7). However, the difference was

FIGURE 2A-7

Costs have risen faster than the market basket in recent years



Note: The market basket index measures changes in the prices of the goods and services hospitals use to deliver patient care.

Source: Medicare analysis of Medicare Cost Report file and annual final rules for the inpatient prospective payment system from CMS.

**TABLE
2A-7**

High financial pressure leads hospitals to constrain costs

Level of financial pressure, 2002 to 2005

	High pressure (non-Medicare margin <1%)	Medium pressure	Low pressure (non-Medicare margin >5%)
Financial characteristics, 2007 (medians)			
Non-Medicare margin (private, Medicaid, uninsured)	-2.4%*	4.5%	13.5%
Standardized cost per discharge			
All hospitals	\$5,800*	\$6,000	\$6,400
Nonprofit hospitals	5,700*	6,000	6,500
For-profit hospitals	5,900	6,000	6,000
Annual growth in cost per discharge 2004 to 2007	4.8%	4.9%	5.0%
Overall 2007 Medicare margin	4.2*	-3.8	-11.7
Patient characteristics, 2007 (medians)			
Total hospital discharges	5,424*	7,478	7,312
Medicare FFS share of inpatient days	45%	44%	46%
Medicaid share of inpatient days	13*	12	10
Medicare case-mix index	1.27*	1.33	1.38
Hospital characteristics			
Number of:			
All hospitals	837	413	1,700
Rural hospitals	260	120	502
For-profit hospitals	199	62	356
Major teaching hospitals	135	47	73
Share of:			
All hospitals	28%	14%	58%
Rural hospitals	29	14	57
For-profit hospitals	32	10	58
Major teaching hospitals	53	18	29

Note: (FFS) fee-for-service. Standardized costs are adjusted for hospital case mix, wage index, outliers, transfer cases, interest expense, and the effect of teaching and low-income Medicare patients on hospital costs. The sample includes all hospitals that had complete cost reports on file with CMS by August 31, 2007.
* Indicates significantly different from low-pressure hospitals using p=0.01 and a Wilcoxon rank test. A Wilcoxon rank test is used to limit the influence of the few hospitals that report very low or very large costs per discharge.

Source: MedPAC analysis of Medicare Cost Report and claims files from CMS available as of August 2008.

much less pronounced among for-profit hospitals. For-profit hospitals under low pressure had median standardized costs of \$6,000 and for-profit hospitals under high pressure had costs of \$5,900 per discharge, a relatively small differential. This finding suggests that for-profit hospitals constrain costs—and nearly maximize profits—even when they are under little financial pressure. Put differently, in a situation where both nonprofit and for-profit hospitals receive high rates from private payers (discussed in the text box, pp. 62–64), the high non-Medicare revenues will be reflected

more readily as higher costs in nonprofit hospitals than in for-profit hospitals where the revenues may be retained as profits (and not be reflected in hospital costs).

Comparing this year’s findings on hospitals under financial pressure with last year’s work, we find consistent results (MedPAC 2008). A difference worth highlighting is that the number of hospitals under financial pressure declined from 2006 to 2007 (from 32 percent to 28 percent) due to a steady increase in non-Medicare margins over the past five years. Given hospitals’ recent investment losses,

Private-payer profits and Medicare

Why are profit margins on privately insured patients so high? Is it because hospitals under financial stress tend to have significant Medicare losses, which force them to have relatively high private-payer prices? The answer is no. We find instead that hospitals under financial pressure tend to control their costs, which makes it more likely that they profit from Medicare patients. In fact, we find that Medicare margins are lowest in the hospitals with abundant resources (i.e., low financial pressure). Therefore, it appears that hospitals are raising prices when they have the market power to do so. As revenue rises, costs rise, and Medicare margins fall. Our key findings are:

- Costs vary widely from hospital to hospital.
- An abundance of financial resources is associated with higher costs.
- Higher costs cause losses on Medicare patients.
- As a result, hospitals with abundant financial resources tend to have Medicare losses.
- In contrast, hospitals with limited financial resources constrain their costs. Medicare payments are usually adequate to cover the costs of these financially pressured hospitals.

The Commission has argued that high profits from non-Medicare sources permit hospitals to spend more, and nonprofit hospitals tend to do so (for-profit hospitals may retain a larger share of their revenues as profits). The causal chain is as follows: A hospital's market power relative to insurers, payer mix, and donations determines its level of financial resources. When financial resources are abundant, nonprofit hospitals spend more, add employees, and increase their costs per unit of service. High costs by definition lead to lower Medicare margins because costs do not affect Medicare revenues (which are based on predetermined payment rates). Therefore, when costs increase, Medicare margins $((\text{revenue} - \text{costs})/\text{revenue})$ decrease (Figure 2A-8, MedPAC hypothesis). In other words, income

affects spending and costs per unit of service. Hence, if Medicare were to increase its payment rates, hospitals might spend some or all of that revenue rather than use it to lower the prices charged to private insurers.

An alternative “cost shift” argument suggests an opposite flow of causation. It starts with the assumption that costs are largely outside hospitals' control. Nursing wages, construction, and technology costs are created by forces unrelated to the industry's financial health. When external forces cause costs to be higher than Medicare prices, hospitals ask private insurers to increase their payment rates to cover the losses on Medicare patients. Hospitals argue that cost shifting is needed to maintain financial viability (Figure 2A-8, Alternative hypothesis). Recently, some have implied that if Medicare paid hospitals more, hospitals would obtain less from private insurers, and insurers would lower premiums for employers and consumers (Fox and Pickering 2008). While hospitals plead to insurers that they are under financial stress due to “cost shifting” and need payment increases from private insurers, the degree to which private insurer rates are driven by this plea from hospitals is an empirical question.

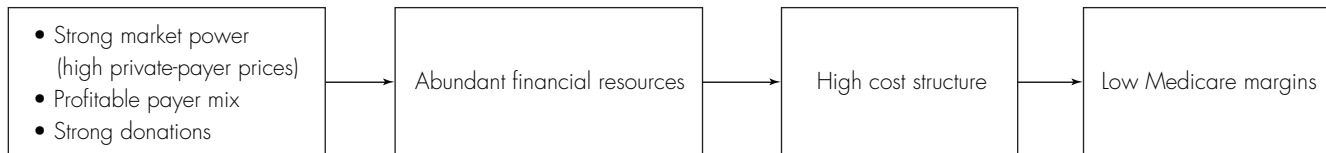
The debate boils down to this: Do high private-payer profits primarily cause high costs and low Medicare margins, or do low Medicare margins primarily cause high private-payer margins? There is some empirical evidence on the question. If our hypothesis is correct, we should see two things: First, costs should vary depending on each hospital's available resources. Hospitals could have different levels of costs per discharge, even within the same market. Second, hospitals with the lowest Medicare margins should tend to be those with ample financial resources (i.e., hospitals that can afford high costs). Under the alternative hypothesis, we should find that hospitals' costs per unit are not related to financial resources (costs are externally determined). Further, we should find that hospitals with large negative Medicare margins are just barely staying afloat. Insurers would be paying them just enough to keep them solvent and preserve access for the insurer's patients.

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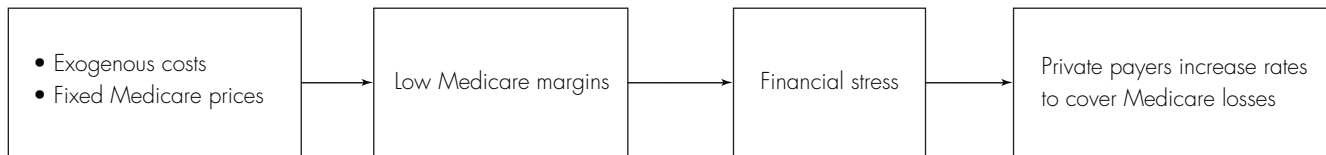
**FIGURE
2A-8**

Hypotheses on the relationship between private-payer prices and Medicare costs

MedPAC hypothesis: Financial resources drive costs



Alternative hypothesis: Costs drive private-payer rates



The academic literature on “cost shifting” is mixed (CBO 2008). Some argue that cost shifting is minimal because of competition (Dranove and White 1998). Others argue that past reductions in Medicare and Medicaid payments have been partially offset by increases in private-payer rates (cost shifting) and partially offset by reduced cost growth (Zwanziger and Bamezai 2006). The findings of cost shifting often rest on the assumption that hospitals minimize costs (they are not affected by revenue) but do not maximize prices they receive from insurers. In contrast, we find that revenues do affect costs.

First, we showed in Table 2A-7 (p. 61) that costs are affected by a hospital’s financial condition. Nonprofit hospitals under financial pressure choose to control their costs. In contrast, nonprofit hospitals with strong non-Medicare profits have higher costs. We also showed in Figure 2A-6 (p. 60) and Figure 2A-7 (p. 60) that the overall industry’s level of cost growth is correlated with the industry-wide level of private-

payer profits. Medicare margins rose in the 1990s when the industry was under pressure to control costs. Commenting on the reduction in “cost shifting” in the 1990s, one actuary recently stated, “what happened there in the ’90s was not that Medicare and Medicaid increased their payments to reduce the losses on Medicare and Medicaid. It was that the commercial private payers reduced their payments. There was a lot of competition. And the hospitals and physicians managed to lower their costs” (Fox 2008). In sum, costs are at least partially under hospitals’ control. Therefore, increases in Medicare payments may lead to increases in hospital costs rather than to decreases in the rates they charge private insurers.

The second empirical question is whether the hospitals with high Medicare losses tend to have financial resources that allow high costs or if they tend to be financially troubled facilities that require higher private rates to keep them afloat. To test whether hospitals with significant Medicare losses tend to be wealthy or

(continued next page)

Private-payer profits and Medicare (cont.)

poor hospitals, we divide them into three groups (Table 2A-8). The group using private-payer profits to fund the largest share of Medicare costs includes hospitals with Medicare margins less than -10 percent; the middle group has moderate Medicare losses; and the third group makes money on Medicare.

The data indicate that the hospitals with the largest Medicare losses tend to be in better financial shape than other hospitals. From 2002 to 2006, hospitals with low Medicare margins had median total (all payer) margins of 4.6 percent compared with 3.4 percent for hospitals with high Medicare margins. In addition, net worth for the high-cost hospitals rose by 17 percent from 2004 to 2006 compared with a 14 percent rise for low-cost hospitals. While causation may flow in both directions to a degree, the data suggest that the primary reason Medicare margins are inversely related to private-payer

profits is that high non-Medicare profits are followed by high hospital costs.

It may appear odd that hospitals with high costs have high total profit margins. In a typical industry, high profits are not associated with high unit costs. The hospital industry is different, however, because of the dominance of nonprofit providers, the influence of payer mix, hospital and insurer market power, and the effect of investments and donations on hospital finances.

Increasing Medicare payments is not a long-term solution to the problem of rising private insurance premiums and rising health care costs. In the end, affordable health care will require incentives for health care providers to reduce their rates of cost growth and volume growth. ■

**TABLE
2A-8**

Hospital revenue drives hospital costs

Overall Medicare profit margin in 2007

Financial characteristics (medians)	< -10%	-10% to 0%	> 0%
Standardized costs, 2007	\$6,900	\$6,100	\$5,500
Number of hospitals	1,138	789	964
Medicare margin, 2007	-20.0%	-5.1%	7.6%
Median total margin, 2004-2006*	4.6	3.8	3.4
Percent change in net worth, 2004-2006	17	15	14

Note: *Total margin refers to the total revenue from all sources less total expenses, divided by total revenue.

Source: MedPAC analysis of Medicare cost report data.

however, these trends could reverse with more hospitals facing high financial pressure starting in fall 2008.

Hospitals under financial pressure tend to be those with smaller operations, a moderately low case-mix index, and a larger share of patients covered by Medicaid. This mix of characteristics can lead to financial pressure, which can force hospitals to constrain costs. As we found last year, the set of hospitals under financial pressure includes hospitals in different locations (rural and urban)

and teaching hospitals as well as nonteaching hospitals. Although the need to constrain costs can be a positive effect of financial pressure, a concern is whether hospitals can constrain costs and still deliver high-quality care.

Exploring hospital efficiency

The MMA requires that the Commission consider the costs associated with the efficient provision of services when recommending updates. In recent years, we started our evolution toward examining efficiency by highlighting

the performance of hospitals with consistently low costs per discharge (MedPAC 2008). This year, we explored hospital efficiency by examining hospitals that perform well on quality as well as on cost metrics. Specifically, we identified a set of hospitals that historically have performed well on mortality, readmission, and inpatient cost metrics.

While we think that adding quality metrics helps to move us closer to identifying “efficient” providers, we recognize that further improvements in cost measurement may also be possible. Ideally, we would want to limit our set of efficient hospitals to those that not only have high in-hospital quality and low unit costs but also have patients with low risk-adjusted overall (across all services) annual Medicare costs. While there are two promising data sources that compute average annual Medicare spending for patients associated with specific hospitals, the risk adjustment and standardization of these cost data still need refinement before we would use them to compute cross-sectional comparisons of efficiency (Fisher and Gottlieb 2008).⁸ Our preliminary analysis of available annual data on spending for all services per beneficiary assigned to a hospital (a longitudinal cost measure) suggests that adding this dimension to our criteria would not significantly change the average characteristics of our set of relatively efficient providers. Nonetheless, until these data are refined further, our process of categorizing hospitals as relatively efficient providers will focus on mortality, readmissions, and inpatient cost.

Categorizing hospitals as relatively efficient

We categorized hospitals into either the relatively efficient group or the control group based on each hospital’s performance on a set of risk-adjusted cost and quality metrics during the period 2004 to 2006. We then examined the performance of the two hospital groups during fiscal year 2007.

We focused on mortality and readmission rates as indicators of quality. Though driven in part by data limitations, this decision was also grounded in the perspective that outcome measures such as mortality and readmission rates reflect elements of hospitals’ quality of care not captured by individual process of care measures (Krumholz et al. 2007). We used a 30-day risk-adjusted mortality rate that is composed of mortality rates for eight conditions adjusted for the patient’s age, sex, and severity of the condition based on the all patient refined diagnosis related groups (APR–DRG).⁹ We also tested alternative

mortality measures developed by CMS and 3M and found similar rankings of providers.

The readmission measure, developed by 3M, adjusts for the severity of the patient’s illness and removes clearly unrelated readmissions such as certain malignancies and trauma (3M 2008, Goldfield et al. 2008). We examine only 2005 risk-adjusted readmissions because we did not have access to data for other years at the time we conducted the analysis.

When comparing costs, we adjusted inpatient costs per discharge for factors that were beyond the hospital’s control and that reflected the hospital’s financial structure rather than its efficiency. Specifically, we standardized costs by adjusting for APR–DRG case mix, area wage index, prevalence of outliers and transfer cases, and the effects of teaching activity and service to low-income Medicare patients on costs per discharge. We also adjusted for differences in interest expenses because such differences can reflect whether a hospital is financed with debt or equity rather than reflecting its operational efficiency.

To rank providers on the basis of performance, we divide the distribution of risk-adjusted mortality, readmissions, and costs among hospitals into thirds (low, medium, and high) for each year from 2004 to 2006. We place a hospital in the relatively efficient group if it meets the following four criteria:

- Risk-adjusted mortality levels are in the best two-thirds in every year (2004 to 2006).
- Risk-adjusted readmission rates are in the best two-thirds in 2005.
- Risk-adjusted costs per discharge are in the best two-thirds in every year (2004 to 2006).
- Either risk-adjusted mortality rates or risk-adjusted costs are in the best one-third during every year (2004 to 2006).

The objective is to identify hospitals that consistently performed above average on at least one measure (cost or quality) and always performed reasonably well on all three measures.

We do not categorize hospitals’ costs or mortality based on a single year’s performance because their quality or cost rankings for an individual year could be better than average due to random variation. After we categorize hospitals in the relatively efficient set or the control group

using three years (2004–2006) of data, we compare the performance of these two groups using the most recent data available (2007). We compare performance using a different year than the data used to categorize hospitals so that a single errant value will not affect both the categorization and the score of the efficient hospital group relative to the control group.¹⁰ Nevertheless, we found similar results when we tested grouping providers by their performance during 2005 to 2007 and then comparing the groups based on their 2007 performance.

Comparing 2007 performance of relatively efficient hospitals and other hospitals

Our set of hospitals with complete data consisted of 338 hospitals in the efficient group and 2,535 hospitals in the comparison group for a total of 2,873 hospitals. The efficient set includes hospitals of all sizes and geographic locations. Among the 338 hospitals are rural hospitals with fewer than 50 beds, urban hospitals with more than 500 beds, and teaching and nonteaching hospitals. While we find that both low- and high-volume hospitals can meet the efficiency criteria, the data suggest that, on average, higher volume hospitals tend to have lower mortality rates; therefore, they are more likely to meet our efficient hospital criteria. This finding is consistent with the literature (Birkmeyer et al. 2002, Halm et al. 2002, Keeler et al. 1992). We excluded CAHs from the analysis because they are not currently paid under the PPS.

We examined the performance of the relatively efficient hospitals by reporting the group's median performance divided by the median for our whole set of 2,873 hospitals on all three performance measures. For example, Table 2A-9 shows that the efficient hospitals' relative risk-adjusted 30-day mortality rate from 2004 to 2006 is 87 percent of the national median, meaning that the typical hospital in the efficient group had a risk-adjusted 30-day mortality rate 13 percent below the national median. Likewise, the efficient group had a median cost per discharge equal to 90 percent of the national median, indicating that the typical hospital in the efficient group had costs 10 percent below the national median during 2004 to 2006. Relative levels of 30-day risk-adjusted mortality and standardized cost per discharge for the other (comparison) group were substantially higher. The relative readmission rates of the two groups, however, differed less.

Historically strong performers continue to have lower mortality in 2007 Because no method of risk adjustment is perfect, we examined the performance of the efficient hospitals using an array of different risk-adjusted mortality

measures. In addition to the AHRQ 30-day mortality measure, we reported on three risk-adjusted 30-day mortality rates developed by CMS (for acute myocardial infarction, congestive heart failure, and pneumonia). Finally, we reported risk-adjusted in-hospital mortality rates aggregated across all conditions because they were not limited to the eight conditions included in AHRQ's measure (Table 2A-9). This third data source used a 3M methodology for risk adjustment.

In general, hospitals that appeared to be efficient from 2004 through 2006 were able to outperform the comparison group on quality-of-care measures in 2007. Hospitals in the historically efficient group had lower median mortality than other hospitals, regardless of the mortality measure. For example, using the AHRQ composite mortality measure, the relatively efficient hospitals' median mortality rate was 14 percent below the 2007 national median. The 2007 mortality levels for specific conditions measured by CMS were also lower for the historically efficient group, but only by 2 percent to 6 percent. For example, the median efficient provider's risk-adjusted heart failure mortality rate was 97 percent of the 2007 national median compared with 101 percent of the national median for the comparison group.

Only patient satisfaction failed to show a difference between the two groups. For both groups, the same share of patients (63 percent) gave their hospital top ratings in 2007, so both groups show performance equal to 100 percent of the national median.

Historically strong performers continue to have lower costs in 2007 Hospitals that were low-cost and low-mortality providers from 2004 through 2006 continued to have lower costs in 2007. The median standardized cost per discharge in the efficient group was 89 percent of the national median (\$5,500 per discharge), while for the comparison group it was 103 percent of the national median (\$6,300). Because of their lower costs, the efficient hospitals have Medicare margins of 0.5 percent, roughly 8 percentage points higher than the control group's margins.

Because we expect to see continual improvement in risk-adjustment methodologies, the measures we use to identify "efficient" providers will evolve to include outpatient metrics and improved inpatient metrics. On the basis of our initial experience, capturing multiple dimensions of quality appears to be desirable (e.g., using both readmissions and mortality), but within the mortality measurement category the choice of measure does not

**TABLE
2A-9**

Characteristics of traditionally high-performing hospitals

	Type of hospital	
	Relatively efficient during 2004–2006	Other hospitals
Number of hospitals	338	2,535
Share of hospitals	12%	88%
Relative historical performance, 2004–2006		
Risk-adjusted:		
Composite 30-day mortality, 2004–2006 (AHRQ)	87%	106%
Readmission rates, 2005	97	101
Standardized cost per discharge, 2004–2006	90	102
Relative quality metrics, 2007		
Risk-adjusted:		
Composite 30-day mortality (AHRQ)	86	103
30-day AMI mortality (CMS)	98	100
30-day CHF mortality (CMS)	97	101
30-day pneumonia mortality (CMS)	94	101
All-condition in-hospital mortality (3M)	83	102
Patient satisfaction (H-CAHPS® compared to national median)	100	100
Relative standardized costs	89	102
Median Medicare margin in 2007	0.5	-7.4

Note: AHRQ (Agency for Healthcare Research and Quality), AMI (acute myocardial infarction), CHF (congestive heart failure), H-CAHPS® (Hospital Consumer Assessment of Healthcare Providers and Systems). Hospitals were put in the relatively efficient group based on their performance on a set of risk-adjusted cost and quality metrics for 2004–2006. Relatives are the median for the group as a percentage of the median of all hospitals. Per case costs are standardized for area wage rates, case mix, severity, outlier cases, interest expense, low-income shares, and teaching intensity. Composite mortality was computed using AHRQ methodology to compute risk-adjusted mortality for eight conditions (AMI, CHF, pneumonia, gastrointestinal hemorrhage, stroke, craniotomy, coronary artery bypass graft, and abdominal aortic aneurysm repair). Scores were then weighted for each type of discharge by the share of discharges in that particular hospital.

Source: MedPAC analysis of prospective payment system impact file, MedPAR, and Medicare cost report data from CMS, and CMS hospital compare data.

materially affect the results. We plan to continue to refine our methodologies as the availability of data and new research methods permit.

How should Medicare payments change in 2010?

When we consider whether Medicare’s aggregate hospital payments are adequate, we look at the six largest hospital service lines—acute inpatient, outpatient, rehabilitation, home health, psychiatric, and skilled nursing facility (including swing beds). In this section, we provide update recommendations for services covered by Medicare’s inpatient operating and outpatient PPS systems. For both the acute inpatient and outpatient PPS, the update in

current law for fiscal year 2010 is the forecast increase in the hospital market basket index.

Changes in input prices

CMS measures price inflation for the goods and services hospitals use in producing inpatient and outpatient services with the hospital operating market basket index. CMS’s latest forecast of this index for fiscal year 2010 is 2.7 percent, but it will update the forecast twice before using it to revise payments in 2010.

Update recommendation

This section presents our update recommendation covering acute inpatient operating and outpatient payments along with a summary of our rationale and the implications of the recommendation. The Commission makes

recommendations on the level of payment rates and also often makes recommendations on how payments should be distributed. In recent years, the Commission has made recommendations not only to increase payment rates but also to create financial incentives for higher quality care. This year, our update recommendation is as follows:

RECOMMENDATION 2A-1

The Congress should increase payment rates for the acute inpatient and outpatient prospective payment systems in 2010 by the projected rate of increase in the hospital market basket index, concurrent with implementation of a quality incentive payment program.

RATIONALE 2A-1

Most of the Commission's indicators of payment adequacy are positive. Access to care remains strong, as indicated by more hospitals opening than closing as well as by the rising share of hospitals offering many services. Volume of outpatient services is growing and quality of care is generally improving. On the other hand, Medicare margins are low and are expected to fall between 2007 and 2009. Our analysis of hospital costs and financial pressure, however, showed that hospitals with low non-Medicare profit margins have below-average standardized costs. Most of these facilities have positive overall Medicare margins.

Balancing these considerations, we conclude that an update equal to the projected increase in the market basket index is appropriate for both inpatient and outpatient services, with this increase implemented concurrently with a quality incentive payment program.¹¹ For a hospital to obtain a payment increase equal to or exceeding the full market basket increase, it would have to perform well on quality metrics. For example, if 1 percent of Medicare payments were withheld to fund a pay-for-performance program, a hospital with poor quality metrics would expect a 1.7 percent increase in payments (2.7 percent projected market basket, less a 1 percent withhold, with no quality bonus). Hospitals that perform well on quality could receive a payment rate increase of significantly more than the projected market basket if the 1 percent pool is distributed to a small share of all hospitals.

The Commission's reasoning for the update recommendation is that, given the mixed picture of indicators, an individual hospital's quality performance should determine whether its net increase in payments is above or below the market basket increase. Our finding that hospitals' costs are strongly related to the financial pressure they are under from non-Medicare sources

suggests that Medicare should put pressure on hospitals to control their costs rather than accommodate the current rate of cost growth.

CMS's current projection of the market basket increase for fiscal year 2010 is 2.7 percent. However, this estimate is revised on a quarterly basis, so the actual update percentage may be different. Also note that the update recommendation does not factor in further adjustments to the payment rates that may be needed to offset unwarranted changes in payment rates that occur due to improvements in coding.¹² CMS will make those adjustments separately in accordance with the law as outlined in the TMA, Abstinence Education, and QI Programs Extension Act of 2007.

IMPLICATIONS 2A-1

Spending

- This recommendation would have no effect on federal baseline program spending.

Beneficiary and provider

- This recommendation should have no negative impact on beneficiary access to care and is not expected to affect providers' willingness and ability to provide care to Medicare beneficiaries. There is a potential for improved quality of care for beneficiaries.

Indirect medical education adjustment

Medicare makes two types of special payments to teaching hospitals. To pay for Medicare's share of the direct costs of teaching such as stipends for residents, salaries for teaching physicians, and related overhead, CMS makes graduate medical education payments. Medicare also pays its share of the indirect costs associated with a teaching program. Being a teaching hospital may indirectly increase costs due to unmeasured differences in patients' severity of illness, residents learning by doing, and greater use of emerging technologies. To pay for the indirect effect of teaching on the cost of caring for Medicare patients, teaching hospitals receive IME payments. Medicare has historically adjusted both operating and capital IME payments. CMS has used its regulatory authority to eliminate 50 percent of capital IME payments in 2009 and plans to fully eliminate these payments in 2010. Capital IME payments were 6 percent of total IME payments in 2007. This discussion focuses on potential changes to the operating IME payments, which represented 94 percent of IME payments in 2007.

The IME adjustment is a percentage add-on to the IPPS rates that varies with the intensity of the hospital's residency training programs. In 2008, operating payments increased approximately 5.5 percent for each 10 percent increment in resident intensity, measured by the ratio of residents to hospital beds. Because IME payments are an adjustment to base payment rates, a hospital's IME payments are tied to its volume and mix of PPS cases as well as to the number of residents it trains.

In 2007, IME payments to hospitals totaled \$6 billion. About 30 percent of hospitals covered by the acute IPPS received an IME payment. IME payments go to 41 percent of urban hospitals and 7 percent of rural hospitals. IME payments are highly concentrated, with major teaching hospitals (those with more than 25 residents per 100 hospital beds) accounting for a little more than a quarter of all teaching hospitals but receiving almost three-quarters of all IME payments, averaging roughly \$14 million per hospital.

The current IME adjustment of 5.5 percent substantially exceeds the estimated relationship between teaching intensity and costs per case. Our analysis found that Medicare inpatient costs per case (operating and capital costs combined) increase about 2.2 percent for every 10 percent increase in the ratio of residents to hospital beds (MedPAC 2007). Therefore, the current adjustment is set at more than twice what can be empirically justified, directing more than \$3 billion in extra payments to teaching hospitals above the effect that training residents and fellows has on the cost of caring for Medicare patients.

Having the adjustment set considerably above what is empirically justified contributes to the large difference in Medicare margins between teaching and nonteaching hospitals (Table 2A-5, p. 57). For example, overall Medicare margins for major teaching hospitals are 1.1 percent in 2007 compared with -9.3 percent for nonteaching hospitals, a difference of 10.4 percentage points.

Reducing the IME adjustment to 4.5 percent per 10 percent increment in teaching intensity would narrow the margin gap by about 2 percentage points. The difference in Medicare margins would be cut in half if the adjustment

were reduced to the empirical level (2.2 percent per 10 percent increment in teaching intensity). The difference in margins would not be completely eliminated because of disproportionate share payments and other factors. To move payments toward the empirically justified amount, we repeat last year's recommendation to lower the IME adjustment to a rate closer to the empirically justified amount.

RECOMMENDATION 2A-2

The Congress should reduce the indirect medical education adjustment in 2010 by 1 percentage point to 4.5 percent per 10 percent increment in the resident-to-bed ratio. The funds obtained by reducing the indirect medical education adjustment should be used to fund a quality incentive payment program.

RATIONALE 2A-2

IME payments exceed the effect of teaching on Medicare costs. These funds are provided to teaching hospitals without any restriction on how they are used. To encourage quality improvement, some of these funds should be made available to all hospitals that provide high-quality care. The Commission therefore recommends that the IME adjustment be reduced from 5.5 percent to 4.5 percent per 10 percent increment in the resident-to-bed ratio. We also recommend that the funds obtained from reducing the IME adjustment be used to help finance quality-incentive payments.

IMPLICATIONS 2A-2

Spending

- This recommendation would have no impact on federal program spending because it is intended to be budget neutral.

Beneficiary and provider

- There is potential for improved quality of care for beneficiaries. The recommendation would reduce IME payments to teaching hospitals but would redistribute payments to all hospitals (including teaching hospitals) that perform well under a quality-incentive program. ■

Endnotes

- 1 Long-term care hospitals (LTCHs) are required to show that they have an average length of stay of at least 25 days before they can be certified as an LTCH. Many LTCHs first become acute care IPPS hospitals until they can demonstrate that they meet the 25-day average stay requirement. Therefore, some of the openings of new hospitals and conversions to LTCHs represent hospitals that never intended to remain an IPPS facility. Once a hospital becomes an LTCH, it is paid based on the separate LTCH payment system.
- 2 Outpatient service volume is measured using Healthcare Common Procedure Coding System (HCPCS) codes. HCPCS definitions can change over time, which can have some effect on annual changes in volume.
- 3 Each year, a number of drugs and implantable devices are paid separately from the services for which they are used. We do not include these items in our analysis of outpatient volume because the list of separately paid drugs and devices has changed widely from year to year throughout the history of the outpatient PPS. Including separately paid drugs and devices in our analysis would result in substantial changes in volume simply because of changes in the list of separately paid drugs and devices.
- 4 A margin is calculated as the difference between payments and costs divided by payments. The services included in the overall margin are acute inpatient, outpatient, skilled nursing facility (including swing beds), home health care, inpatient psychiatric, and inpatient rehabilitation.
- 5 Our forecast is for 2009, but we consider the policy environment that hospitals will face in 2010 under current law as we deliberate the appropriate update for that year. Therefore, the forecast estimates what payments would have been in 2009 if 2010 policy (other than the 2010 update) had been in effect at that time.
- 6 The most recent cost growth data available at the time of this mailing was for the nine months ending September 30, 2008, from certain for-profit systems that report quarterly results. We compared 2007 to 2008 costs for HCA, Community Health Systems, Lifepoint, Health Management Associates, and Tenet.
- 7 SCHs will be paid based on the rate that results in the greatest aggregate payment using either the federal rate or their hospital-specific rate (HSR) from FY 1982, FY 1987, FY 1996, or FY 2006. The FY 2006 HSR is likely to be the greatest amount for most SCHs.
- 8 The Dartmouth Center for the Evaluative Clinical Sciences provided the Commission with two promising methods of evaluating hospitals' longitudinal efficiency. One method provides data on standardized annual overall Medicare spending for the patients assigned to each general acute care hospital in the United States (Fisher and Gottlieb 2008). The data set assigns patients to physicians and then assigns physicians to hospitals (Fisher et al. 2006). The data set is promising and allows the Commission to examine whether patients assigned to a particular hospital's medical staff have a low annualized cost of care. However, the weakness of the data is that they are not risk adjusted. The second data set reports on resource use in the last two years of life. This data set is risk adjusted, but further refinements to standardizing costs may be necessary to allow for accurate cross-sectional comparisons of hospitals' Medicare costs. Commission staff will continue to work with Dartmouth staff as these measures are refined to provide more precise cost comparisons.
- 9 Risk-adjusted mortality is computed for each of the eight conditions using a risk adjustment methodology developed by AHRQ. The risk-adjusted mortality is then normalized by dividing each hospital's level of risk-adjusted mortality by the national level of risk-adjusted mortality for that condition. Finally, we create a weighted average of the risk-adjusted mortality for each hospital by weighting the eight conditions based on their relative share of cases seen in that hospital.
- 10 For example, assume one hospital was unlucky in 2006 and had high risk-adjusted mortality due to patient characteristics that were not in the risk adjuster. This odd, one-time patient mix would bias the mortality for this hospital up and force it into the control group (i.e., not the "efficient" group). The control group would then have its 2006 mortality biased upward and look poor compared with the "efficient" group. In other words, we do not want errors in categorizing hospitals as efficient to be correlated with errors in their reported cost or quality metrics.
- 11 The inpatient update would apply to fiscal year 2010, and the outpatient update would apply to calendar year 2010.
- 12 Under the TMA, Abstinence Education, and QI Programs Extension Act of 2007, if the Secretary determines that the transition to MS-DRGs resulted in "changes in coding and classification that did not reflect real changes in case mix ... that are different from the prospective documentation and coding adjustments" required by the Act (0.6 percent in 2008 and 0.9 percent in 2009), then the Secretary shall make an appropriate adjustment to future payments and make an additional adjustment to payments in 2010, 2011,

and 2012 to offset the amount of increase or decrease in aggregate payments (including interest). Therefore, if coding improvements led to more than a 0.6 percent change in 2008 payments, the Secretary will reduce payment rates for 2010 to reflect the coding increase and make an additional adjustment to recoup any overpayments made to hospitals. If the Secretary finds that the 0.6 percent adjustment was too large, then the Secretary will increase payments. Any necessary adjustments for coding improvement should be made in addition to the Commission's update recommendation.

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SECTION
2B

**Physician services and
ambulatory surgical centers**

R E C O M M E N D A T I O N S

2B-1 The Congress should update payments for physician services in 2010 by 1.1 percent.

COMMISSIONER VOTES: YES 15 • NO 0 • NOT VOTING 0 • ABSENT 2

.....

2B-2 The Congress should establish a budget-neutral payment adjustment for primary care services billed under the physician fee schedule and furnished by primary-care-focused practitioners. Primary-care-focused practitioners are those whose specialty designation is defined as primary care and/or those whose pattern of claims meets a minimum threshold of furnishing primary care services. The Secretary would use rulemaking to establish criteria for determining a primary-care-focused practitioner.

COMMISSIONER VOTES: YES 13 • NO 2 • NOT VOTING 1 • ABSENT 1

.....

2B-3 The Congress should direct the Secretary to increase the equipment use standard for expensive imaging machines from 25 hours to 45 hours per week. This change should redistribute relative value units from expensive imaging to other physician services.

COMMISSIONER VOTES: YES 14 • NO 0 • NOT VOTING 2 • ABSENT 1

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2B-4 The Congress should increase payments for ambulatory surgical center (ASC) services in calendar year 2010 by 0.6 percent. In addition, the Congress should require ASCs to submit to the Secretary cost data and quality data that will allow for an effective evaluation of the adequacy of ASC payment rates.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

SECTION 2B

Physician services and ambulatory surgical centers

Section summary

This chapter analyzes overall payment adequacy for physician services in fee-for-service (FFS) Medicare and examines payments for expensive imaging services in particular. We also assess payment adequacy for ambulatory surgical centers (ASCs)—facilities that typically are owned wholly or in part by physicians.

Physician update and primary care importance—Our analysis of physician services provided in FFS Medicare finds that most indicators of payment adequacy are positive and stable, suggesting that most beneficiaries can obtain physician care on a timely basis. In 2007, the volume of physician services provided per beneficiary grew almost 3 percent, continuing to raise concerns about fiscal sustainability, equity, and mispricing. The Commission recommends that for 2010, the Congress update payments for physician services by 1.1 percent. This update would require significant additional spending above current law, which calls for a 21 percent cut. Despite some recent increases in payments for primary care services, the Commission remains concerned that those services are undervalued and at significant risk of being

In this section

- Analysis of payment adequacy for physician services
- How should Medicare payments for physician services change in 2010?
- The increasing importance of primary care
- Changing payments for expensive imaging services
- Analysis of payment adequacy for ambulatory surgical centers
- How should Medicare payments for ambulatory surgical centers change in 2010?

underprovided. To underscore the urgency of this issue, the Commission repeats its previous recommendation that payments for primary care services be increased when provided by practitioners who focus on primary care (MedPAC 2008d). This fee schedule adjustment would be budget neutral.

Recommendation 2B-1

COMMISSIONER VOTES:

YES 15 • NO 0 • NOT VOTING 0 • ABSENT 2

The Congress should update payments for physician services in 2010 by 1.1 percent.

Recommendation 2B-2

COMMISSIONER VOTES:

YES 13 • NO 2 • NOT VOTING 1 • ABSENT 1

The Congress should establish a budget-neutral payment adjustment for primary care services billed under the physician fee schedule and furnished by primary-care-focused practitioners. Primary-care-focused practitioners are those whose specialty designation is defined as primary care and/or those whose pattern of claims meets a minimum threshold of furnishing primary care services. The Secretary would use rulemaking to establish criteria for determining a primary-care-focused practitioner.

Results from a MedPAC-sponsored survey of beneficiaries conducted in fall 2008 indicate that beneficiary access to physicians is generally good and in several measures better than that reported by privately insured patients age 50 to 64. Most beneficiaries (76 percent) reported that they never had to wait longer than they expected for a routine care appointment or an illness- or injury-related appointment (84 percent). However, among the small share of beneficiaries (6 percent) who reported that they looked for a new primary care physician, 28 percent reported problems finding one. Beneficiary access when looking for a new specialist was better. When examining access by race, minorities were more likely to experience access problems in both the Medicare and the privately insured groups. We also conducted research in selected local areas suspected of having access problems but, in general, did not find evidence of major access problems in these areas. A data analysis of emergency department (ED) use found that ED visits for both Medicare and privately insured patients rose substantially between 1996 and 2006, but their respective shares of total ED visits remained stable over this time.

We also analyze whether physicians are accepting and treating Medicare patients. Results from the 2007 National Ambulatory Medical Care Survey show that 92 percent of office-based physicians who receive 10 percent or more of their practice revenue from Medicare were accepting new Medicare patients in 2007. Our analysis of 2006 Medicare claims data—the most recent available—shows that the number of physicians providing services to FFS Medicare beneficiaries has kept pace with growth in the total FFS beneficiary population. Also, the share of physicians and limited licensed practitioners who have participation agreements with Medicare—requiring them to accept Medicare’s assigned payment amount—was 95 percent in 2008.

In our comparison of private insurance payment rates to Medicare rates, we find that for 2007 Medicare’s payment for physician services was 80 percent of private insurer payments, averaged across all physician services and geographic areas. This rate is slightly lower than it was for 2006 (81 percent) but maintains a generally stable course over the last decade.

Service volume per beneficiary continued to grow in 2007, albeit at a slower rate than in previous years. Overall volume (reflecting both service units and intensity) grew 2.9 percent per beneficiary. Volume growth rates varied among broad categories of services—evaluation and management (2.1 percent), imaging (3.8 percent), major procedures (1.6 percent), other procedures (5.0 percent), and tests (1.8 percent)—but all were positive.

Changing payments for expensive imaging services—The Commission recognizes that there has been rapid technological progress in diagnostic imaging over the past several years, which has enabled physicians to diagnose and treat illness with greater speed and precision. However, we are concerned that the rapid volume growth of costly imaging services in recent years may signal that they are mispriced under the current fee schedule. Specifically, the practice expense (PE) relative value units (RVUs) for services such as MRI and computed tomography (CT) scans appear to be too high. Because RVUs are set in a budget-neutral manner, high RVUs for imaging procedures lead

to lower RVUs for primary care and other services. In addition, rapid volume growth of imaging can lead to an across-the-board reduction in fees for all other services under the sustainable growth rate system.

There are other reasons to be concerned about the potential mispricing of imaging services. First, imaging RVUs that are set too high could encourage providers to purchase machines and use them as frequently as possible. According to a physician quoted in a recent article, “If you have ownership of the machine ... you’re going to want to utilize the machine” (Berenson and Abelson 2008). Second, the rise in imaging has increased beneficiaries’ exposure to ionizing radiation, which is a risk factor for developing cancer. The U.S. population’s per capita dose of radiation received from diagnostic imaging increased by 600 percent from 1980 to 2006 (Mettler et al. 2008). Much of this increase was driven by rapid growth of CT and nuclear medicine studies. Although an individual’s risk of developing cancer from a single test is small, these risks are being applied to a growing number of patients.

Evidence that advanced imaging services are mispriced is apparent in the method Medicare uses to set PE RVUs for these services. With this method, CMS assumes that imaging machines are operated 25 hours per week, or 50 percent of the time that practices are open for business. Setting the equipment use factor at 25 hours per week—rather than at a higher level—has led to higher PE RVUs for these services. Higher payment rates encourage providers with low expected volume to purchase expensive imaging machines. Once providers purchase machines, they have an incentive to use them as frequently as possible. There is evidence that MRI and CT machines are used much more frequently than Medicare assumes.

Medicare should adopt a normative standard in which providers are assumed to use costly imaging machines at close to full capacity (45 hours per week, or 90 percent of the time that providers are assumed to be open). Such a normative standard would discourage providers from purchasing expensive imaging equipment unless they had sufficient volume to justify

the purchase. The Secretary should start by adopting a standard of 45 hours per week for all diagnostic imaging machines that cost at least \$1 million and should explore applying this standard to imaging equipment that costs less. This change would reduce PE RVUs for costly imaging services and increase RVUs for other physician services. The additional RVUs for other physician services would come from lower PE RVUs for expensive imaging services (i.e., a redistribution of money within the physician fee schedule), and money that would have been returned to the Part B trust fund under the outpatient cap policy of the Deficit Reduction Act of 2005.

The Congress should direct the Secretary to increase the equipment use standard for expensive imaging machines from 25 hours to 45 hours per week. This change should redistribute relative value units from expensive imaging to other physician services.

Recommendation 2B-3

COMMISSIONER VOTES:

YES 14 • NO 0 • NOT VOTING 2 • ABSENT 1

Payment adequacy in ambulatory surgical centers—In addition to their offices, many physicians furnish outpatient surgical services in ASCs and hospital outpatient departments (HOPDs). ASCs are distinct entities that exclusively furnish outpatient surgical services to patients not requiring hospitalization and for which the expected duration of service does not exceed 24 hours after admission. ASCs are a source of revenue for many physicians, as 91 percent of ASCs have at least one physician owner, so we discuss payment adequacy of ASCs alongside payment adequacy for physicians (ASC Association 2008).

ASCs offer several advantages to physicians and patients over their closest competitor—HOPDs. ASCs may offer patients lower coinsurance, more convenient locations, the ability to schedule surgery more quickly, and shorter waiting times than HOPDs. Physicians may be able to perform more surgeries per day in ASCs because they have greater control over their schedules, and because they often have customized surgical environments and specialized staffing. In addition, Medicare spending per service is lower in ASCs than in HOPDs.

We include an assessment of the adequacy of Medicare payments to ASCs in this chapter. The indicators suggest that ASC Medicare payment rates are adequate. Our analysis of payment adequacy of ASCs shows that:

- Medicare revenue increased from \$1.9 billion in 2002 to \$2.9 billion in 2007. CMS projects continued revenue growth to \$3.5 billion in 2008 and \$3.9 billion in 2009 (CMS 2008c).
- The number of ASCs grew by an average of 6.7 percent each year from 2002 through 2007.
- Volume of services per beneficiary grew by 9.8 percent per year from 2002 to 2007.
- The number of Medicare beneficiaries served in ASCs increased by 7.5 percent per year from 2002 to 2007.

There is some uncertainty about whether these measures indicate that payments are adequate in the current ASC payment system. First, payments from Medicare are only about 20 percent of total ASC revenue and factors other than Medicare payment adequacy likely contributed to the growth in the number of ASCs. Also, most of our analysis examined data from 2002 through 2007, but CMS made substantial changes to the ASC payment system in 2008, so our analysis may be limited in terms of measuring payment adequacy under the new payment system. The most significant changes include a different method for setting payment rates, allowing separate payment for certain ancillary services, and a 32 percent increase in the number of surgical procedure codes allowed to be performed and billed under the ASC payment system.

Under the revised payment system, we examined the payment rates for all procedures covered under the ASC payment system and found that 86 percent have a higher payment rate under the revised system in 2009 than under the old system in 2007. However, 20 procedures accounted for 74 percent of total ASC Medicare service volume. Nineteen of these procedures when performed in an ASC have lower payment rates in 2009 than in 2007 because their ASC

payment rates in 2007 were at or close to their HOPD payment rates, but the revised payment system lowered these procedures' ASC payment rates relative to their HOPD rates. Thus, ASCs that focus most of their Medicare business on the highest volume procedures—predominantly ophthalmology, gastroenterology, and pain management services (e.g., injections for back pain)—receive lower payment rates under the revised system. However, there is a four-year transition to the revised system. Also, CMS projects increased Medicare spending on ASCs, because the revised system has increased the number of procedures covered under the ASC payment system. Therefore, if they diversify the procedures they provide to Medicare beneficiaries, ASCs can maintain or increase their Medicare revenue.

On the basis of our analysis of ASCs, the Commission recommends that their payments be updated by 0.6 percent in calendar year 2010. In addition, ASCs do not submit cost data or quality data to the Secretary. However, cost and quality data are vital for effectively assessing payment adequacy. Therefore, the Commission recommends that ASCs be required to submit cost and quality data to the Secretary. ■

The Congress should increase payments for ambulatory surgical center (ASC) services in calendar year 2010 by 0.6 percent. In addition, the Congress should require ASCs to submit to the Secretary cost data and quality data that will allow for an effective evaluation of the adequacy of ASC payment rates.

Recommendation 2B-4

COMMISSIONER VOTES:
YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

Background

Physician services include office visits, surgical procedures, and a broad range of other diagnostic and therapeutic services. They are furnished in all settings, including physician offices, hospitals, ambulatory surgical centers (ASCs), skilled nursing facilities, other post-acute care settings, hospices, outpatient dialysis facilities, clinical laboratories, and beneficiaries' homes. Physician services are billed to Medicare Part B. Medicare fee-for-service (FFS) payments for physician services were \$60 billion in 2007, accounting for about 14 percent of total Medicare spending (Boards of Trustees 2008). In the decade between 1997 and 2007, Medicare spending per beneficiary on physician services grew 77 percent—from \$1,033 to \$1,825 (Figure 2B-1). Growth in spending on physician services is one of several contributors to the 113 percent growth in Part B premiums and beneficiary cost sharing over this time period.

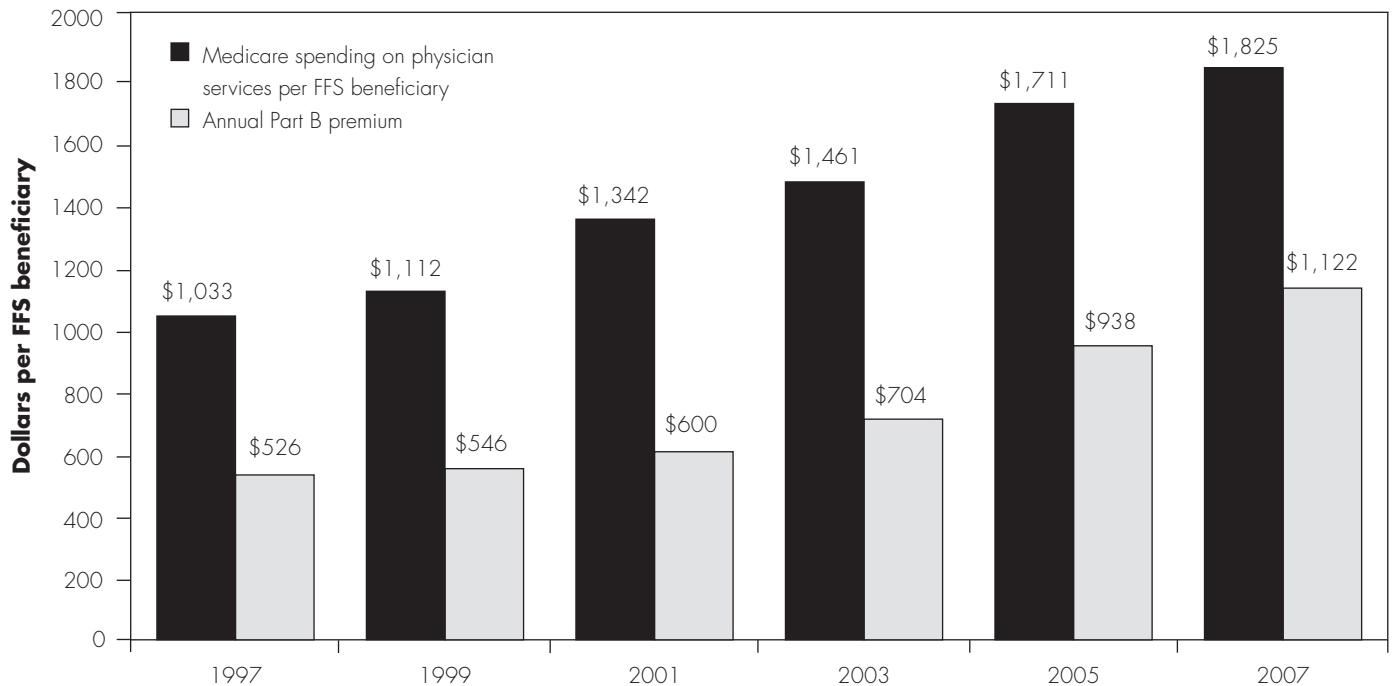
In the FFS program, Medicare pays for physician services according to a fee schedule that lists services and their associated payment rates. The fee schedule assigns

each service a set of three relative weights (physician work, practice expense (PE), and professional liability insurance) intended to reflect the typical resources needed to provide the service. These weights are adjusted for geographic differences in practice costs and multiplied by a dollar amount—the conversion factor—to determine payment amounts. In general, Medicare updates payments for physician services by increasing or decreasing the conversion factor. For further information, see MedPAC's *Payment basics: Physician services payment system* at http://www.medpac.gov/documents/MedPAC_Payment_Basics_08_Physician.pdf.

By law, the update of the physician fee schedule conversion factor is determined by a formula—the sustainable growth rate (SGR)—set forth in the Balanced Budget Act of 1997. It ties payment updates to a number of factors, including growth in input costs, growth in Medicare FFS enrollment, and growth in the volume of physician services relative to growth in the national economy and changes in law and regulation. In 2000 and 2001, the SGR called for updates of 5.5 percent and 4.8 percent, respectively. However, in 2002, fees decreased by 5.4 percent in accordance with the SGR formula.

FIGURE 2B-1

Spending per FFS beneficiary on physician services and Part B premiums have grown substantially



Note: FFS (fee-for-service). The annual Part B premium is calculated by multiplying the monthly premium amount by 12.

Source: 2007 and 2008 annual reports of the Boards of Trustees of the Medicare trust funds. Department of Health and Human Services news releases, 1996–2006.

Since then, legislative intervention has prevented further reductions in the conversion factor. In some cases, the new laws did not eliminate the negative updates but deferred them to later years. The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA) established a 1.5 percent update to the conversion factor in 2004 and 2005. The Deficit Reduction Act of 2005 (DRA) avoided a cut in 2006 by essentially freezing the conversion factor.¹ The Tax Relief and Health Care Act of 2006 (TRHCA) avoided a cut in 2007, also by freezing the conversion factor. TRHCA also directed additional spending to physicians in 2007 and 2008 through the Physician Quality Reporting Initiative (PQRI), under which most physicians were eligible for a 1.5 percent bonus on all their charges allowed by the physician fee schedule if they met specified quality reporting requirements.

The Medicare, Medicaid, and SCHIP Extension Act of 2007 replaced what would have been a 10.1 percent reduction in the physician fee schedule conversion factor with a 0.5 percent increase, effective January 1 through June 30, 2008. Then, the Medicare Improvements for Patients and Providers Act of 2008 (MIPPA) maintained this payment level through the end of 2008 and increased the conversion factor by 1.1 percent in 2009. This law also increased the PQRI bonuses to 2 percent for 2009 and 2010. MIPPA also created bonus incentives for electronic prescribing. This program allows physicians who satisfy the new electronic prescribing requirement in 2009 and 2010 to receive an additional 2 percent bonus on their allowed physician fee schedule charges.² MIPPA extended the existence of the work geographic practice cost index floors—maintaining higher payments primarily in rural areas. Physicians who practice in areas designated as health professional shortage areas continue to receive a 10 percent bonus on all allowed charges.³

Notwithstanding the update adjustments and other payment enhancements enacted since 2003, the SGR mechanism remains in current law. For 2010, the Congressional Budget Office estimates that, absent a change in current law, the conversion factor update will be cut by 21 percent under the SGR formula. This deep cut essentially reflects the sum of the conversion factor updates used to override the payment cuts in previous years.

The Commission is not satisfied with the current physician payment update mechanism. The existing SGR formula does not provide incentives at the individual physician level to control volume growth, and it is inequitable across physicians. Furthermore, it has been overridden

by statute for the last six years (2004–2009), and it continues to call for substantial consecutive negative updates through at least 2016. Sustained annual reductions in physician payment rates would threaten beneficiaries' access to physician services. Our 2007 report, *Report to the Congress: Assessing Alternatives to the Sustainable Growth Rate System*, examined several alternative approaches for updating physician payments and made suggestions to improve the accuracy of Medicare's payments, create incentives for physicians to provide better quality of care, coordinate care across settings, and use resources judiciously (MedPAC 2007).

Recently, in testimony before the U.S. Senate Committee on Finance, we reiterated the need for improved coordination among and between providers and the urgent need to address the undervaluation of primary care through budget-neutral payment increases (MedPAC 2008e). Given the potential of primary care to improve the quality and efficiency of health care delivery, Medicare payment policy should actively encourage—not hinder—the provision of these services. Research has found that states with higher ratios of primary care physicians to specialists have better health outcomes and higher scores on performance measures (Baicker and Chandra 2004, Starfield et al. 2005). Moreover, areas with higher rates of specialty care per person are associated with higher spending but not improved access, quality, health outcomes, or patient satisfaction (Fisher et al. 2003a, Fisher et al. 2003b, Kravet et al. 2008, Wennberg et al. 2006).

Analysis of payment adequacy for physician services

Our analysis of payments for physician services in FFS Medicare shows that payments in the aggregate are adequate, but the Commission is concerned about access to primary care. Our assessment examines several indicators, including beneficiary access to physician care, rates of physicians participating with Medicare and taking assignment, changes in the volume of services provided, and Medicare reimbursement levels compared with those in the private sector. In the most recent years for which we have data, each indicator was positive or stable with respect to payment adequacy. We cannot look at financial performance of physicians directly because they are not required to report their costs to Medicare, as are other providers such as hospitals and home health agencies.

Access to physician services: Beneficiary indicators

Physicians are often the most important link between Medicare beneficiaries and the health care delivery system. According to our analysis of national survey data from the 2005 Medicare Current Beneficiary Survey, about 86 percent of noninstitutionalized beneficiaries report that a doctor's office or a doctor's clinic is their usual source of care (MedPAC 2008d). Beneficiary access to physicians, therefore, is an important indicator of access to health care generally as well as of Medicare payment adequacy.

One way that we evaluate beneficiary access to physician services is through an annual patient survey. By design, many survey questions rely on respondents' views, which are necessarily subjective. For example, respondents use their own judgment when determining whether they are able to schedule timely appointments. Subjective responses can be useful measures for tracking beneficiary experience and perceptions over time, but perceptions of concepts such as "timeliness" may vary among individuals and subpopulations.

Additionally, it is difficult to determine the appropriate level of access. Beneficiaries judge their access to physicians in an environment where most of them have supplemental insurance. This coverage lowers their out-of-pocket costs for physician visits, thereby diminishing the likelihood that cost will temper demand. Some economists might argue that a payment policy goal of no, or almost no, beneficiaries reporting access problems is inefficient or unattainable. Even so, monitoring for changes in access is crucial for the Medicare program. We find access measures most useful when looking for trends across years and in comparison with privately insured populations. Such analyses help us observe changes in beneficiaries' access to physicians over time and discern Medicare payment issues from overall health market circumstances. These considerations supplement our analysis of payment adequacy for physician services. However, our access measures do not necessarily inform us about the quality or content of physician-patient encounters.

MedPAC's 2008 patient survey shows that, overall, access is good, but primary care continues to be a concern

To obtain the most current access measures possible, the Commission sponsors a telephone survey each year of a nationally representative, random sample of two groups of people: Medicare beneficiaries age 65 or older and privately insured individuals age 50 to 64.⁴ In previous

years, we surveyed 2,000 people in each group, but for the 2008 survey (conducted from August through October) we increased the sample size to 3,000 in each group in an effort to increase statistical power. By surveying both groups, we can assess the extent to which access problems, such as delays in scheduling an appointment or difficulty in finding a new physician, are unique to the Medicare population. Within the Medicare population, our survey results do not distinguish Medicare FFS enrollees from those in Medicare Advantage (MA) plans because of the technical difficulty in obtaining reliable self-identification of FFS or MA enrollment from surveyed individuals. Similarly, we do not distinguish by type of private coverage among the non-Medicare population in our survey.

Results from our 2008 survey indicate that most beneficiaries have reliable access to physician services, with most reporting few or no access problems. Most beneficiaries are able to schedule timely medical appointments and find a new physician when needed, but small subsets of beneficiaries report problems in making appointments or finding a new physician, particularly in primary care. Medicare beneficiaries reported similar or better access than privately insured individuals age 50 to 64. Minorities in both groups were more likely than whites to experience access problems. The 2008 survey results are generally consistent with what we have found in previous years.

Most beneficiaries are getting timely appointments

Most Medicare beneficiaries have one or more doctor appointments in a given year. Therefore, one access indicator we examine is their ability to schedule timely appointments. In the 2008 survey, most Medicare beneficiaries (76 percent) and most privately insured individuals age 50 to 64 (69 percent) reported "never" having to wait longer than they wanted to get an appointment for routine care (Table 2B-1, p. 88). Another 17 percent of Medicare beneficiaries reported that they "sometimes" had to wait longer than they wanted for a routine appointment, compared with 24 percent of privately insured individuals. The differences between the Medicare and privately insured populations in their "never" and "sometimes" response rates were statistically significant, suggesting that Medicare beneficiaries on average were more satisfied with the timeliness of their routine care appointments.

As expected, rates of getting timely illness- and injury-related appointments were better than rates for routine care

**TABLE
2B-1**

Medicare beneficiaries generally experienced similar or better access to physician care compared with privately insured individuals

Survey question	Medicare (age 65 or older)				Private insurance (age 50-64)			
	2005	2006	2007	2008	2005	2006	2007	2008
Unwanted delay in getting an appointment:								
Among those who needed an appointment, "How often did you have to wait longer than you wanted to get a doctor's appointment?"								
For routine care								
Never	74%	75%	75%*	76%*	67%	69%	67%*	69%*
Sometimes	21	18	18*	17*	25	21	24*	24*
Usually	3	3	3	3*	5	5	4	5*
Always	2	3	3	2	3	4	3	2
For illness or injury								
Never	82	84	82*	84*	75	79	76*	79*
Sometimes	15	11	13*	12*	19	15	17*	16*
Usually	1	2	3	1	3	2	3	2
Always	1	1	2	1	2	2	3	2
Looking for a new physician: "In the past 12 months, have you tried to get a new primary care doctor?"								
Yes	7	10	9	6	9	10	10	7
No	92	89	91	93	91	90	90	93
Getting a new physician: Among those who tried to get an appointment with a new physician, "How much of a problem was it finding a primary care doctor/specialist who would treat you? Was it..."								
Primary care physician								
No problem	75	76	70*	71	75	75	82*	72
Small problem	12	10	12	10	16	15	7	13
Big problem	13	14	17	18	9	10	10	13
Specialist								
No problem	89	80	85	88*	86	83	79	83*
Small problem	6	7	6	7	7	9	11	9
Big problem	5	11	9	4*	6	7	10	7*
Not accessing a doctor for medical problems:								
"During the past 12 months, did you have any health problem or condition about which you think you should have seen a doctor or other medical person, but did not?" (Percent answering "Yes")								
	7	8	10	8*	12	11	12	12*

Note: Numbers may not sum to 100 percent due to rounding. Missing responses ("Don't Know" or "Refused") are not presented. Overall sample sizes for each group (Medicare and privately insured) were 2,000 in years 2005 to 2007 and 3,000 in 2008. Sample sizes for individual questions varied.

* Indicates a statistically significant difference between the Medicare and privately insured populations in the given year at a 95 percent confidence level.

Source: MedPAC-sponsored telephone surveys, conducted August–October 2005, 2006, 2007, and 2008.

appointments. Again, Medicare beneficiaries were less likely than privately insured individuals to report problems getting timely illness or injury appointments. Among those who scheduled an illness or injury appointment, 84 percent of Medicare beneficiaries and 79 percent of privately insured individuals said they “never” experienced a delay, while 12 percent of Medicare beneficiaries reported “sometimes” having to wait longer than they wanted, compared with 16 percent of privately insured individuals. These differences are statistically significant, suggesting that, on average, Medicare beneficiaries were less likely than privately insured individuals to encounter delays for illness and injury appointments.

Beneficiaries’ appointment access in 2008 varied by race, with minorities more likely than whites to report access problems. This difference was seen for both the Medicare and the privately insured populations. For example, white beneficiaries (77 percent) were significantly more likely than minority beneficiaries (70 percent) to report never waiting longer than they wanted for routine care appointments (Table 2B-2, p. 90). The trend was similar for illness and injury appointments. Within our sample, access problems were more frequent for minorities with private insurance compared to Medicare, but few of these differences were statistically significant. Finding disparities in access between whites and minorities is consistent with recent research conducted by the Center for Studying Health System Change (HSC). On the basis of a national physician survey, the authors found that physicians with a higher share of minorities in their practice were more likely to report difficulties obtaining referrals to specialists for their patients (Reschovsky and O’Malley 2008). Physicians attributed such problems to the fact that many of their patients were uninsured or had insurance coverage that posed access barriers rather than to an inadequate supply of qualified specialists in the area.

Relatively few Medicare and privately insured patients sought a new physician, but of those who did, some experienced access problems

Our survey also monitors the two sample groups’ need and ability to find a new physician. As in previous years, relatively few survey respondents reported that they tried to get a new primary care physician or specialist in 2008. This finding suggests that most respondents were either satisfied with their current physician or did not have a health event that made them search for a new one. Specifically, only 6 percent of Medicare beneficiaries and 7 percent of privately insured individuals reported that they looked for a new primary care physician in the

preceding year; a higher percentage (about 14 percent in each group) reported seeking a new specialist (not shown in Table 2B-1).

We found that, across income categories, Medicare beneficiaries appear equally likely to be looking for a new primary care physician (not shown in table). In contrast, among the privately insured population (age 50–64) those with lower incomes were more likely to report looking for a new primary care physician during the year. This situation may reflect more frequent job changes among lower income, privately insured individuals, which leads to changes in insurance and applicable physician networks.

Of the 6 percent of Medicare beneficiaries who looked for a new primary care physician in 2008, 28 percent reported problems finding one—10 percent characterized the problem as “small” and 18 percent reported it as “big.” Although these figures amount to less than 2 percent of the total Medicare population (28 percent of the 6 percent of beneficiaries looking for a new primary care physician), the problems these beneficiaries face can be quite distressing and are often featured in local and national media reports (Jenkins 2008, Sack 2008). Such accounts typically report similar problems for privately insured individuals, and our survey found no statistical difference between Medicare and privately insured individuals in problems finding a primary care physician.

As in previous years, we found that beneficiaries seeking a new specialist were less likely to report problems than those seeking a new primary care physician. A greater percentage of Medicare beneficiaries (88 percent) reported “no problem” finding a new specialist in 2008 compared with privately insured individuals (83 percent). Also, the rate of those with a “big problem” finding a specialist was lower for Medicare beneficiaries than for privately insured individuals. These 2008 results are consistent with the findings in the 2007 survey but contrast with the findings in the 2006 survey, underscoring some year-to-year volatility in these figures based on small sample sizes.

Although the sample shows some differences between minorities and whites in reported ease of finding a new physician, none of these differences was statistically significant in the Medicare population. Among privately insured individuals, however, we found a statistically significant difference in the share of whites (6 percent) and minorities (18 percent) who reported “big problems” finding a specialist.

**TABLE
2B-2**

Access problems are more frequent for minorities in both the Medicare and the privately insured population, 2008

Survey question	Medicare (age 65 or older)			Private insurance (age 50-64)		
	White	Minority	All	White	Minority	All
Unwanted delay in getting an appointment:						
Among those who needed an appointment, "How often did you have to wait longer than you wanted to get a doctor's appointment?"						
For routine care						
Never	77%*†	70%†	76%*	70%*	65%	69%*
Sometimes	17*	18*	17*	23*	25*	24*
Usually	3	4*	3*	4†	9*†	5*
Always	1*†	5*†	2	3*	1*	2
For illness or injury						
Never	85*†	78†	84*	79*	79	79*
Sometimes	12*	17	12*	16*	18	16*
Usually	1	2	1	2	2	2
Always	1	1	1	2	1	2
Looking for a new physician: "In the past 12 months, have you tried to get a new primary care doctor?"						
Yes	9	5	6	7	4	7
No	91	95	93	93	96	93
Getting a new physician: Among those who tried to get an appointment with a new physician, "How much of a problem was it finding a primary care doctor/specialist who would treat you? Was it..."						
Primary care physician						
No problem	71	76	71	74	62	72
Small problem	11	5	10	14	8	13
Big problem	17	19	18	11	26	13
Specialist						
No problem	89	84*	88*	85	70*	83*
Small problem	7	9	7	9	12	9
Big problem	3	7*	4*	6†	18*†	7*
Not accessing a doctor for medical problems:						
"During the past 12 months, did you have any health problem or condition about which you think you should have seen a doctor or other medical person, but did not?" (Percent answering "Yes")						
	7*†	14†	8*	12*	13	12*

Note: Numbers may not sum to 100 percent due to rounding. Missing responses ("Don't Know" or "Refused") are not presented. Overall sample sizes for each group (Medicare and privately insured) were 2,000 in years 2005 to 2007 and 3,000 in 2008. Sample sizes for individual questions varied. The "white" category includes white non-Hispanic survey respondents. The "minority" category includes black non-Hispanic, Hispanic, and other races.

* Indicates a statistically significant difference between the Medicare and privately insured populations in the given year at a 95 percent confidence level.

† Indicates a statistically significant difference by race within the same insurance coverage category in the given year at a 95 percent confidence level.

Source: MedPAC-sponsored telephone survey, conducted August-October 2008.

Reports of not getting needed physician care were more frequent for privately insured and lower income individuals

Our survey also examines rates of patients reporting that they did not see a physician when they thought they should have. In 2008, Medicare beneficiaries (8 percent) were less likely than their privately insured counterparts (12 percent) to say that they should have seen a doctor for a medical problem in the past year but did not (Table 2B-1). For those people who reported not getting care, a small share (9 percent of Medicare beneficiaries and 11 percent of privately insured individuals) listed physician availability issues (e.g., getting an appointment time or finding a doctor) as the problem (not shown in table). The other reasons they gave included cost, low perceived seriousness of the problem at the time of the illness, and procrastination.

Race and income are related to reports of not getting needed care. Among Medicare beneficiaries, minorities (14 percent) were more likely than whites (7 percent) to report not getting physician care when they thought they should have. We also found that, for both Medicare and privately insured people, those with lower incomes were more likely to report that they did not see a physician when they thought they should have (not shown in table). This finding is consistent with much published research (e.g., Strunk and Cunningham 2002). Considering the recent downturn in the U.S. economy, the frequency of cost-related access problems is likely to increase. Beneficiaries who have experienced significant drops in their savings may determine that they can no longer afford their supplemental insurance policies, which protected them from cost-sharing liabilities. As such, they may be at a greater risk for access problems related to cost.

Other national surveys show results comparable to the Commission's survey

Results from other patient surveys on access are analogous to the Commission's survey results. Specifically, HSC has conducted three large patient surveys funded by the Robert Wood Johnson Foundation over the last decade on access to health care by type of insurance. HSC's 2007 survey, the most recent of the three, found relatively good access for most Medicare beneficiaries (Table 2B-3, p. 92). The survey found that Medicare beneficiaries were significantly less likely to report not getting or delaying needed medical care than people with employer-sponsored private insurance and nongroup private insurance (Cunningham 2008). Although Medicare beneficiaries fare best, this survey finds that access has generally worsened for all insurance types over the last

decade. Exact comparisons between HSC's surveys and the Commission's surveys are difficult because of differences in questions and respondent ages. For example, HSC's survey includes people of all ages, whereas the Commission's survey is limited to people age 50 or older. Also, the HSC survey does not specifically ask about access to physician care; instead, it focuses on access to medical care, more generally.

AARP also conducted a patient survey in 2007, which found that Medicare respondents were less likely to encounter problems accessing physicians than privately insured people age 50 to 64 (Keenan 2007). For example, 68 percent of Medicare beneficiaries reported that they "never" had to wait longer than they expected for routine care, compared with 60 percent of privately insured respondents. Although this survey's sample size is smaller than both MedPAC's and HSC's surveys, its results are consistent with those larger surveys.

The AARP survey also asked about patients' satisfaction with access to physicians. Among Medicare beneficiaries, 82 percent reported that they were "extremely satisfied" or "very satisfied" compared with 78 percent of privately insured individuals. This difference in satisfaction is analogous to other previous research. Specifically, a patient survey sponsored by the Commonwealth Fund found that elderly Medicare beneficiaries were more likely than those with private insurance to report being very satisfied with the care they received (62 percent compared with 51 percent) (Davis et al. 2002). In this survey, Medicare beneficiaries were also less likely than those with private insurance to go without needed care due to costs (18 percent compared with 22 percent), and they were more likely than enrollees in employer-sponsored plans to rate their health insurance as excellent.

An even larger beneficiary survey, the Consumer Assessment of Healthcare Providers and Systems for Medicare fee-for-service (CAHPS[®]-FFS), includes two questions related to beneficiary access to physicians: one on access to specialists and the other on appointment scheduling for routine care. The CAHPS-FFS survey is conducted primarily by mail and samples about 100,000 beneficiaries, including community-dwelling, institutionalized, and disabled individuals. It asks assorted questions related to the health care services FFS beneficiaries receive. The survey showed that, in 2006, most beneficiaries (87 percent) reported "always" (61 percent) or "usually" (26 percent) being able to schedule timely appointments for routine care. Also, nearly 91

**TABLE
2B-3**

The Center for Studying Health System Change finds low rates of access problems for Medicare beneficiaries compared with other insured individuals

	1996-1997	2003	2007
Percent with unmet need			
Total	5.2%	5.2%	8.0%*†
Age 65 or over			
Enrolled in Medicare only	1.9	3.1	3.5
Enrolled in Medicare and other public or private supplemental coverage	1.3	1.6	3.2*†
Younger than age 65			
Employer-sponsored private insurance	3.7	3.6	5.6*†
Nongroup private insurance	4.2	4.6	7.2*
Medicaid and other state coverage	6.9	5.3	10.7*†
Uninsured	13.5	13.2	17.5*†
Percent who delayed care			
Total	9.8	8.4*	12.3*†
Age 65 or over			
Enrolled in Medicare only	4.0	8.0*	8.6*
Enrolled in Medicare and other public or private supplemental coverage	4.4	3.8	5.2*†
Younger than age 65			
Employer-sponsored private insurance	9.3	7.5*	11.8*†
Nongroup private insurance	10.4	10.7	15.4*†
Medicaid and other state coverage	8.7	5.7*	9.9†
Uninsured	17.1	16.1	20.0*†

Note: *Change from 1996-1997 is statistically significant at 0.05 level.
†Change from 2003 is statistically significant at 0.05 level.

Source: Center for Studying Health System Change Community Tracking Study Household Surveys, 1996-1997 and 2003; Center for Studying Health System Change Health Tracking Household Survey, 2007.

percent of beneficiaries reported that they “always” (59 percent) or “usually” (31 percent) were able to schedule an appointment with a specialist as soon as they wanted. Between 2004 and 2006, the share of beneficiaries reporting good access to physicians for routine and specialty care has remained generally high on the CAHPS-FFS survey. The share reporting some difficulty getting a timely appointment grew from 7.0 percent in 2004 to 10.6 percent in 2006.⁵

Considering the importance of tracking access to primary care, it would be useful if the CAHPS-FFS survey included a more direct question about access to primary care. Essentially, we are using access to routine care appointments as a proxy for primary care, but the Commission suggests that CMS consider asking specifically about beneficiary access to primary care providers, including primary care physicians, nurse practitioners, and physician assistants.

Research on certain local markets did not find major access problems

Although our update analysis focuses on national indicators of payment adequacy, this year we examined beneficiary access in selected market areas to gain further insight into the circumstances and issues that beneficiaries face in different areas of the country. For this work, we conducted telephone surveys and focus groups. Our local market research found some differences from area to area, but in general most beneficiaries did not have big problems accessing physician services.

For our telephone surveys, we selected five areas that had relatively poorer access, according to results from the 2006 CAHPS-FFS: Richmond, VA; Tampa, FL; Toledo, OH; Las Vegas, NV; and Tulsa, OK. Although these areas scored in the highest quartile for reporting major access problems, the rates were low—below 5 percent in all areas. In other words,

even in the worst quartiles, relatively few beneficiaries reported major access problems.

The telephone survey results, despite being targeted for poorer access, were generally quite similar to those found in the national survey. That is, the share of beneficiaries reporting that they never had problems scheduling routine care appointments ranged from 76 percent to 83 percent in these targeted areas (compared with 76 percent nationally). Among privately insured individuals, the range was from 63 percent to 74 percent in the targeted areas (compared with 69 percent nationally). Analogous patterns emerged regarding appointment scheduling for illness or injury.

CMS had a similar experience when surveying 11 markets it suspected had access problems in its Targeted Beneficiary Survey (TBS). Conducted in 2003 and 2004, the TBS found that, even in these particular markets, only a small percentage of beneficiaries had access problems resulting from physicians not taking new Medicare patients (Lake et al. 2005).

In addition to our local telephone surveys, we also conducted nine beneficiary focus groups in three markets (Richmond, VA; Albany, NY; and Albuquerque, NM). Groups ranged from 10 to 12 participants. The focus groups asked participants about their recent experiences with Medicare, including their ability to gain access to needed medical services. Generally, beneficiaries did not report problems getting access to physician services. Almost all said they had a regular physician, usually a primary care physician. Most participants reported that they could get an appointment with their regular doctor within a day or two.

We found some differences across the three focus group markets. Beneficiaries in Albany generally enjoyed the best access to physician services. Problems were most frequently reported in Albuquerque. Focus group participants there suggested that issues affecting a large statewide integrated health system and state taxes on physician revenues had created physician access problems that affected private patients as well as Medicare beneficiaries. For example, a number of participants in MA plans reported that they had trouble finding physicians in their plan's network who were accepting new patients.

Use of emergency department services by Medicare beneficiaries

We examined use of emergency department (ED) services as another indicator of patients' access to physician care.

Patients who have difficulty getting doctor appointments may instead seek care in EDs. In addition, with extended hours and no appointment necessary, EDs may be viewed as more convenient sources of care. Our analysis finds that the share of ED visits by Medicare and privately insured individuals grew at similar rates over the last decade. However, Medicare patients were more likely than privately insured patients age 45 to 64 to use EDs for conditions requiring immediate attention—an indicator of appropriate use of ED services.

According to data from the National Hospital Ambulatory Medical Care Survey (NHAMCS), there were about 119 million ED visits in 2006 (the most recent national data available). Between 1996 and 2006, ED use increased by 32 percent (Table 2B-4, p. 94). During this time, ED use increased for all patients with insurance (Medicare, Medicaid, and private insurance) as well as for those who were uninsured. In addition, the share of ED visits for those with and without insurance remained relatively stable between 1996 and 2006. For example, Medicare patients accounted for 16 percent of all ED visits in 1996 and for 17 percent of all visits in 2006. The uninsured accounted for 18 percent of all visits in 1996 and for 19 percent of all visits in 2006.

Our findings are fairly consistent with other researchers' conclusions. Roberts and colleagues (2008) reported that, between 1993 and 2003, ED visits for patients aged 65 to 74 years increased by 34 percent. In comparison, we find that ED visits for all Medicare patients increased by 43 percent between 1996 and 2006 (Table 2B-4). Our analysis also shows that the uninsured do not account for the majority of ED use. Other researchers have reached this conclusion. According to data from the nationally representative Community Tracking Study Household Survey, the proportion of ED visits by uninsured patients remained around 15 percent from 1996 through 2004 (Weber et al. 2008, Weber et al. 2005). After adjusting for patients' demographic characteristics and other variables, Weber and colleagues (2005) found that uninsured patients were no more likely than privately insured patients to have an ED visit.

In our analysis of the NHAMCS data, we found that ED use for Medicare patients was more likely due to medical conditions requiring more immediate attention than for privately insured patients. In 2006, 72 percent of all ED visits for Medicare patients were classified as either immediate—requiring care within 15 minutes of arrival—or urgent—requiring care within an hour of

**TABLE
2B-4**

Emergency department visits grew between 1996 and 2006

Type of coverage	Number of emergency department visits (in thousands)		Share of total emergency department visits*		Number of emergency department visits per 100 persons	
	1996	2006	1996	2006	1996	2006
Medicare	14,462	20,670	16%	17%	41	51
Private insurance	34,398	47,291	38	40	18	23
Medicaid	19,884	30,349	22	25	63	79
Uninsured	16,285	22,763	18	19	39	48
Total	90,347	119,190	106	110	34	40

Note: Uninsured category includes those visits for which the source of payment was either self-pay or no charge.

*Emergency department visits by patients with worker's compensation, other coverage, and unknown source are included in the total. More than one source of payment can be reported for an emergency department visit. Thus, total does not sum to 100 percent.

Source: MedPAC analysis of the 1996 and 2006 National Hospital Ambulatory Medical Care Survey and data from the Census Bureau.

arrival. Nineteen percent of visits by Medicare patients were classified as semiurgent—requiring care within 1 to 2 hours of arrival, and 9 percent of visits were classified as nonurgent—requiring care within 2 to 24 hours of arrival.⁶ By comparison, 64 percent of visits by privately insured patients (age 45 to 64) were classified as either immediate or urgent, 23 percent of visits were classified as semiurgent, and 12 percent of visits were classified as nonurgent.

We see several similarities between Medicare and privately insured patients age 45 to 64 regarding ED use. For example, the two groups had similar concentrations of visits during regular office hours (weekdays from 8 a.m. to 5 p.m.). In 2006, 40 percent of Medicare ED visits occurred during this time. By comparison, 37 percent of privately insured ED visits occurred during these hours. Both Medicare and privately insured patients waited similar times in the ED before seeing a physician. In 2006, both groups waited an average of about 53 minutes to see a physician, and the waiting time was directly related to the urgency of the visit.

For both insurance groups, data from 2006 suggest that, on average, white patients did not wait as long as nonwhite patients to see a physician.⁷ On average, white Medicare patients waited 50 minutes to see a physician, and nonwhite Medicare patients waited 65 minutes. By comparison, in the privately insured group, white patients waited an average of 49 minutes to see a physician, and nonwhite privately insured patients waited 69 minutes.

In the future, the Commission may explore several related issues. For example, we would like to examine the frequency and reasons for using ED services for patients who report having a usual source of care versus those who do not have a usual source of care. Also, we will further investigate the differences in the use of ED services and wait times between white and nonwhite Medicare patients. Another important issue is the practice of boarding patients, in which patients are held in the ED—often in beds in the hallways—until an inpatient bed becomes available. According to the Institute of Medicine (IOM), it is not uncommon for patients in some EDs to be boarded for 48 hours or more (IOM 2006). The IOM and other researchers have raised concerns about the quality of care for patients who are boarded in the ED.

Access to physician services: Physician indicators

For our payment adequacy analysis, we also consider physician survey information and other physician indicators, such as trends in physician supply. These pieces of information lag one or more years behind the results from our beneficiary access survey, but they still provide useful information about the direction and magnitude of changes in physicians' willingness and availability to treat Medicare patients. Survey data and indicators from other sources found that most physicians accepted all or most new Medicare beneficiaries. Our analysis of 2006 Medicare claims data shows that the number of physicians providing services to FFS Medicare beneficiaries has kept pace with growth in the total beneficiary population.

Physician surveys report high rates of Medicare patient acceptance

The most recent results available from the National Ambulatory Medical Care Survey (NAMCS)—a national survey of office-based physicians in clinical practice, conducted annually by the National Center for Health Statistics—also show that a large majority of physicians accept some or all new Medicare patients.

For 2007, the NAMCS found that, among physicians with at least 10 percent of their practice revenue coming from Medicare, 92 percent accepted at least some new Medicare patients (Cherry 2009). The NAMCS also found that a greater percentage of physicians accepted new Medicare patients than privately insured patients in capitated and noncapitated health plans. Importantly, the acceptance rates for Medicare patients have remained relatively steady—in the low 90 percent range—over the last several years. With this data set, we also examined Medicare acceptance rates for physicians in primary care and found that (among physicians with at least 10 percent of their practice revenue coming from Medicare) 88 percent of primary care physicians and about 94 percent of physicians in all other specialties accepted at least some new Medicare patients in 2007.⁸

The Commission sponsored a large survey of physicians in 2006, and its results showed a mostly positive but somewhat mixed picture of physician willingness to accept new Medicare FFS patients (MedPAC 2007, Schoenman et al. 2006).⁹ Most physicians (97 percent) were accepting at least some new Medicare FFS patients, with a smaller share (80 percent) accepting all or most. Acceptance of new Medicare FFS patients compared favorably with Medicaid and HMO patients but was a little lower than for private non-HMO patients. More physicians were concerned about reimbursement for Medicare FFS patients than for private non-HMO patients. Many physicians reported recent changes to their practice to increase revenue. Increasing service volume, for example, may be an important factor, as most physicians report that their own productivity is a “very important” determinant of their individual compensation—to a greater extent than quality and patient satisfaction.

Number of physicians billing Medicare has kept pace with enrollment growth

Our analysis of Medicare FFS claims data shows that the number of physicians providing services to Medicare beneficiaries has kept pace with growth in the beneficiary population through 2006. We are unable to determine the

number of physicians billing Medicare in 2007 because of data difficulties stemming from the conversion to new provider identifier numbers, which occurred in 2007 to comply with the Health Insurance Portability and Accountability Act.

From 2001 to 2006, the number of physicians who billed Medicare grew faster than Medicare Part B enrollment. During this time, Part B beneficiary enrollment grew 6.9 percent compared with an 8.7 percent growth in the number of physicians with 15 or more Medicare patients.¹⁰ The number of physicians with 200 or more Medicare patients grew even faster, at 12.9 percent, indicating that the ratio of physicians per 1,000 beneficiaries grew more rapidly for physicians with larger Medicare caseloads. This growth reflects increases in the share of physicians seeing more Medicare patients.

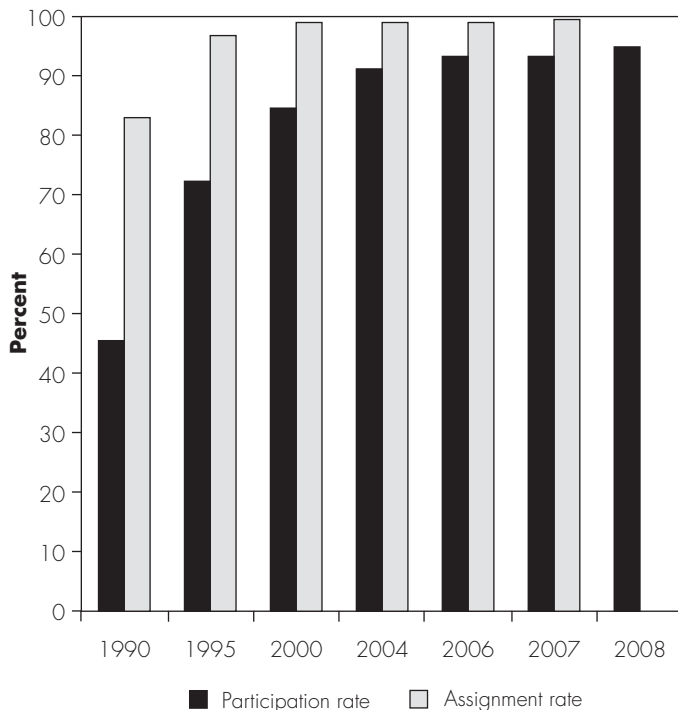
Although, in the aggregate, supply appears sufficient, the share of U.S. medical school graduates entering family practice and primary care residency training programs has declined in the last decade (MedPAC 2008d). In recent years, international medical graduates have filled this gap, but the trend may not adequately meet growing demand in future years. Also, the proportion of third-year internal medicine residents becoming generalists is falling because a growing share choose to subspecialize or become hospitalists after residency (Bodenheimer 2006, MedPAC 2008d). Therefore, although the Government Accountability Office (GAO) found that the number of physician residents in primary care training programs increased 6 percent over the last decade, it is important to understand that many of these residents do not remain in primary care practice (GAO 2008). The Commission is concerned about the undervaluation of primary care services and in a later section of this chapter we reiterate our 2008 recommendation for a payment increase for primary care services provided by practitioners who focus on primary care.

Claims assignment and physician participation rates have been stable at high levels

To supplement our data on the supply of physicians treating Medicare patients and beneficiaries’ reported access to physician care, we examine assignment rates (the share of allowed charges for which physicians accept assignment) and physician participation rates (the share of physicians and limited licensed practitioners who have Medicare participation agreements). Our analysis of Medicare claims data shows that 99.5 percent of allowed charges for physician services were assigned in 2007 (Figure 2B-2, p. 96); that is, for almost all allowed services

**FIGURE
2B-2**

Participation and assignment rates have grown to high levels, 1990-2008



Note: Participation rate is the percentage of physicians and limited licensed practitioners who have Medicare participation agreements. Assignment rate is the percentage of allowed charges paid on assignment. The assignment rate for 2008 is not shown; it requires calculations from claims not yet available.

Source: Ways and Means Greenbook (2004), unpublished CMS data, and MedPAC analysis of Medicare claims for a 5 percent random sample of Medicare beneficiaries.

that year, physicians agreed to accept the Medicare fee schedule amount as payment in full for the service. The assignment rate has held steady at more than 99 percent since 2000.

The high rate of assigned charges reflects the fact that most physicians and limited licensed practitioners who bill Medicare agree to participate in Medicare—95 percent in 2008, which is 1 percentage point higher than in 2007. Participating physicians agree to accept assignment on all allowed claims in exchange for a 5 percent higher payment on allowed charges. Participating physicians also receive nonmonetary benefits, such as being able to receive payments directly from Medicare (less the beneficiary cost-sharing portion) rather than having to collect the total amount from the beneficiary. This

arrangement is a major convenience for many physicians. Participating physicians also have their name and contact information listed on Medicare’s website and they have the ability to electronically verify a patient’s Medicare eligibility and supplemental insurance (medigap) status. Medicare’s physician participation agreement does not require them to take Medicare patients. While 97 percent of allowed charges in 2007 were for services provided by participating physicians, another 2.5 percent were for services provided by nonparticipating physicians who decided to accept assignment. Only 0.5 percent of allowed charges were for services provided by nonparticipating physicians who also did not accept assignment.

We also note that in the American Medical Association’s (AMA’s) recently released National Health Insurer Report Card, Medicare performed better than private insurers on most claims processing measures (AMA 2008). These measures included indicators for timeliness, transparency, and accuracy of claims processing.¹¹

Ratio of Medicare to private insurer physician fees has remained relatively stable

Another measure of Medicare payment adequacy examines the trend in Medicare’s physician fees relative to private insurer fees. In the early to mid-1990s, Medicare payment rates averaged about two-thirds of commercial payment rates for physician services, but since 1999 Medicare rates consistently have been in the range of 80 percent of commercial rates. We base this analysis on a data set of paid claims for two large national private insurers and Medicare claims.¹² In addition to physician fee comparisons, the analysis estimates average annual fees based on private enrollment trends for different types of plans, including HMOs, preferred provider organizations, point-of-service plans, high-deductible health plans, and traditional indemnity insurance.

Averaged across all physician services and geographic areas, Medicare’s payment for physician services in 2007 was 80.3 percent of extrapolated private insurer payments (Figure 2B-3).¹³ This rate is slightly lower than it was for 2006 (81.3 percent), but it marks a generally stable range over the last decade. Looking specifically at evaluation and management (E&M) services, Medicare’s payment rates are closer to private payers’ rates—about 88 percent on average in 2007. Note that Medicare payment rates for the broad category of imaging services declined due to a provision in the Deficit Reduction Act of 2005 that capped fee schedule imaging rates at the outpatient prospective payment system (PPS) rates and due to changes in

calculating practice expense. If our Medicare-to-private analysis excluded imaging services, the 2007 ratio would have been about 2 percentage points higher.

Research published by HSC, although based on somewhat dated information, has compared access rates by geographic area, with particular attention to the difference between Medicare and private insurer fees in each area (Trude and Ginsburg 2005). This research found that, despite differences in Medicare and commercial payment rates across markets, the proportion of Medicare beneficiaries reporting problems with access to care in markets with the widest payment rate gaps did not vary significantly from the proportion reporting problems in markets with more comparable payment rates. In addition, privately insured people age 50 to 64 did not appear to gain better access to care relative to Medicare beneficiaries in markets with higher commercial payment rates. These findings suggest that developments in local health systems and markets may strongly influence access for both Medicare beneficiaries and the privately insured. Indeed, these conditions may affect beneficiary access as much as or more than Medicare payment levels.

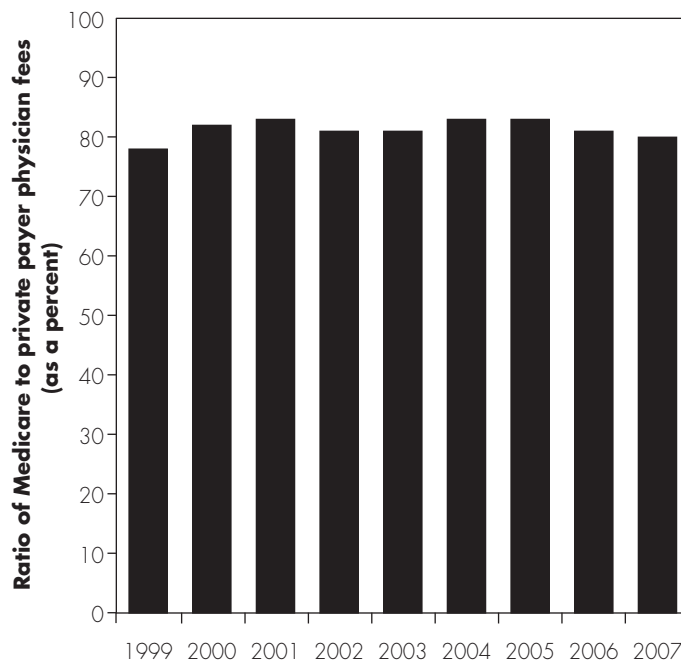
Most ambulatory care quality measures remained stable or improved in 2006

Using a set of indicators—the Medicare Ambulatory Care Indicators for the Elderly—we measure the provision of necessary care and rates of potentially avoidable hospitalizations over time. Comparing 2006 with 2004, our analysis shows mostly small improvements and stability in these measures. Specifically, among 38 measures, 21 showed improvement and 11 were stable. For several conditions, declines in potentially avoidable hospitalizations occurred concurrently with increases in the use of clinically necessary services for the same condition. For example, for diabetes we found decreases in the rate of diabetes-related hospitalizations over the same time period when we found increases in the use of diagnostic testing and follow-up. Therefore, we see improvements in outcome measures (lower rates of short-term and long-term complications) concurrent with improvements in process measures (higher rates of necessary care, such as lipid and hemoglobin testing).

We were unable to update our analysis of ambulatory care quality with 2007 claims but plan to do so in another report. Further details on the 2006 findings, summarized above, can be found in our March 2008 report (MedPAC 2008c).

FIGURE 2B-3

Ratio of Medicare to private payer physician fees is stable



Source: Direct Research, LLC, for MedPAC for 1999–2004 data. MedPAC analysis for 2005–2007 data.

Volume growth does not reveal access problems but highlights sustainability, pricing, and equity concerns

Interpreting increases and decreases in service volume growth as an indicator of payment adequacy is complex. For example, decreases in volume could signify price inadequacy if physicians were reluctant to offer such services based on their Medicare payment. However, we have found that volume decreases are more likely to be due to other factors, such as general practice pattern changes. Under the same reasoning, increases in volume may signal overpricing if physicians favor certain services because they are exceedingly profitable; again, other factors—including practice pattern changes, population changes, disease prevalence, technology, and beneficiaries’ preferences—can also explain volume increases. In addition, there is evidence that the volume of services sometimes increases when payment rates decline (Codespote et al. 1998). The possibility of such a response—known as a behavioral or volume offset—makes it particularly difficult to interpret volume increases by themselves as an indicator of payment adequacy.

Volume growth gives rise to other concerns expressed by the Commission and others about the future of Medicare. Specifically, these concerns are: the fiscal sustainability of the Medicare program, the inequity of a payment system that allows some physicians—often those in procedural specialties—to generate volume and revenue more readily than others, and the mispricing of services in the physician fee schedule. We briefly review each of these issues after the following claims analysis of volume growth.

Claims analysis shows continuing per beneficiary volume growth

In 2007, the volume of physician services used per Medicare beneficiary continued to grow in the aggregate. For this analysis, we used claims data for 2002 through 2007 and calculated per beneficiary growth in the units of service furnished by physicians and other professionals billing under Medicare’s physician fee schedule. We then weighted the units of service by each service’s relative value units (RVUs) from the physician fee schedule. The result is a measure of growth that accounts for changes in both the number of services and the complexity, or intensity, of those services. We thus distinguish growth in volume from growth in units of service: Volume growth includes an adjustment for change in intensity, whereas unit-of-service growth does not. Compared with analyzing growth in spending, measuring growth in volume removes the effects of price changes.

Across all services, volume per beneficiary grew 2.9 percent in 2007 (Table 2B-5). For each broad category of service—E&M, imaging, major procedures, other procedures (nonmajor), and tests—growth rates varied but were all positive. Services in the “other procedures” category grew the most: From 2006 to 2007, they increased 5.0 percent. Imaging was next, at 3.8 percent, followed by E&M (2.1 percent), tests (1.8 percent), and major procedures (1.6 percent).

In contrast to the volume growth for all broad service categories, some of the more specific categories saw decreases.¹⁴ In the case of coronary angioplasty, for example, the decrease coincides with publication of two studies showing no better outcomes for patients receiving percutaneous coronary intervention—services included in the coronary angioplasty service category—compared with medical therapy (Boden et al. 2007, Hochman et al. 2006). The continued volume decrease in coronary artery bypass grafts likely represents substitution of less invasive services for this procedure. In the case of MRI studies of the brain, the change in volume includes two observations:

a decrease in the intensity of those services but an increase in the number of services per beneficiary. The decrease in intensity—a decrease in the average RVUs per service for the category—occurred because of a shift in utilization from studies done with contrast material to studies done without contrast material.

Other specific service categories saw increases in volume per beneficiary, with some of the increases raising questions about necessity. Services in the “Advanced—computed tomography (CT): other” category are one example. These services grew at an average annual rate of 13.8 percent from 2002 to 2006 and by another 6.7 percent from 2006 to 2007. This growth has accompanied “dramatic” increases in CT availability, raising questions about the costs and benefits of the expansion (Baker et al. 2008). Outpatient rehabilitation is another type of service that has seen rapid growth in volume. From 2002 to 2006, the volume of these services per beneficiary grew an average 11.2 percent per year. From 2006 to 2007, growth was stronger still, at 15.0 percent. To control spending for these services, limits—known as the “therapy caps”—are in place (MedPAC 2008b). Much of the growth in 2007 occurred in services eligible for an exception to the caps. The “orthopedic—other” category is a third example of services with rapid volume growth. Service volume went up by an average of 7.1 percent from 2002 to 2006 and by 6.4 percent from 2006 to 2007. While this category includes a somewhat heterogeneous mix of services, much of the growth here is in spine surgery, a type of procedure that has prompted questions about effectiveness (Abelson 2008).

The 2007 data also show distinct shifts in volume growth among categories of services. Growth in volume per beneficiary has been modest for E&M services and major procedures (Figure 2B-4, p. 100). From 2002 to 2007, E&M grew 15.9 percent and major procedures grew 14.6 percent. By contrast, cumulative volume grew more for other procedures (33.9 percent), tests (37.7 percent), and imaging (44.4 percent). In turn, with higher growth rates for some services and lower growth rates for others, the distribution of volume across the service categories has shifted (Figure 2B-5, p. 101). That is, as a proportion of total volume, E&M fell from 45.7 percent to 42.3 percent between 2002 and 2007. By contrast, imaging’s share of total volume for those years rose from 13.7 percent to 16.0 percent.

Issues raised by volume growth

The continued growth in the volume of physician services is a reminder of concerns expressed by the Commission, the Congressional Budget Office, the Government

**TABLE
2B-5**

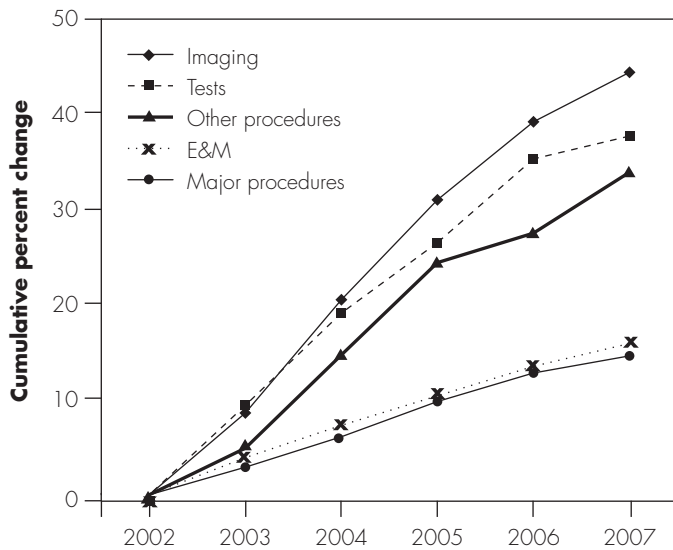
Use of physician services per fee-for-service beneficiary continues to increase

Type of service	Change in units of service per beneficiary		Change in volume per beneficiary*		Percent of total volume*
	Average annual 2002-2006	2006-2007	Average annual 2002-2006	2006-2007	
All services	3.3%	2.1%	4.6%	2.9%	100.0%
Evaluation and management	1.1	0.9	2.8	2.1	42.3
Office visit—established patient	1.3	1.1	2.8	2.4	18.3
Hospital visit—subsequent	1.0	0.2	2.4	1.3	8.5
Consultation	0.1	0.6	2.8	1.3	5.6
Emergency room visit	0.9	0.8	3.4	2.7	2.9
Hospital visit—initial	0.1	-0.3	0.6	0.2	2.0
Nursing home visit	1.7	3.0	5.0	4.8	1.9
Office visit—new patient	0.3	0.9	0.7	1.3	1.7
Imaging	4.7	2.0	8.6	3.8	16.0
Advanced—CT: other	11.1	5.4	13.8	6.7	2.3
Echography—heart	6.0	2.5	7.3	3.8	2.1
Standard—nuclear medicine	6.2	-1.6	8.9	0.1	2.0
Advanced—MRI: other	12.6	2.6	13.5	2.5	1.8
Standard—musculoskeletal	3.4	1.5	3.5	1.6	1.1
Advanced—MRI: brain	6.6	0.8	7.2	-2.3	1.0
Echography—other	10.1	7.3	11.0	7.4	0.8
Imaging/procedure—other	10.9	10.4	12.1	16.6	0.7
Standard—breast	9.4	4.7	3.5	3.0	0.6
Standard—chest	0.4	0.1	-0.3	4.2	0.6
Echography—carotid arteries	5.0	1.8	8.5	4.2	0.6
Advanced—CT: head	6.3	5.1	8.0	5.6	0.5
Major procedures	1.9	1.3	2.8	1.6	8.8
Cardiovascular—other	0.2	-5.3	2.4	-5.1	1.9
Orthopedic—other	6.6	5.9	7.1	6.4	1.2
Knee replacement	8.2	1.7	9.3	2.6	0.7
Coronary artery bypass graft	-7.8	-9.0	-8.3	-8.5	0.5
Coronary angioplasty	2.9	-11.5	2.9	-11.9	0.4
Explore, decompress, or excise disc	5.5	2.9	5.7	4.8	0.4
Hip replacement	2.3	1.7	3.4	3.0	0.4
Hip fracture repair	-0.9	-0.1	0.5	1.3	0.3
Pacemaker insertion	4.5	3.7	5.1	-0.3	0.3
Other procedures	5.6	6.0	6.1	5.0	21.3
Skin—minor and ambulatory	3.1	1.0	3.6	4.7	3.6
Outpatient rehabilitation	11.9	14.1	11.2	15.0	2.6
Radiation therapy	1.6	4.6	8.6	10.8	2.4
Minor procedures—other	11.8	1.1	8.9	2.4	2.1
Cataract removal/lens insertion	1.0	-1.1	1.3	-0.7	1.6
Minor procedures—musculoskeletal	8.3	3.1	10.8	3.2	1.4
Colonoscopy	2.1	1.1	2.0	1.1	1.0
Eye—other	7.7	16.5	5.8	9.0	0.9
Cystoscopy	2.4	0.5	5.7	1.6	0.5
Upper gastrointestinal endoscopy	2.6	0.5	2.5	0.9	0.5
Tests	4.0	-0.7	7.0	1.8	5.0
Other tests	6.8	-1.7	11.7	0.6	2.2
Electrocardiogram	1.7	-1.4	1.3	0.1	0.6
Cardiovascular stress tests	5.3	0.5	6.2	1.9	0.6
Electrocardiogram monitoring	3.6	2.2	2.0	2.1	0.2

Note: CT (computed tomography). To put service use in each year on a common scale, we used the relative weights for 2007. For billing codes not used in 2007, we imputed relative weights based on the average change in weights for each type of service. Some low-volume categories and services are not shown but are included in the "all services" calculation. One such category includes all positron emission tomography services that would otherwise appear in disparate other categories.

*Volume is measured as units of service multiplied by each service's relative weight (relative value units) from the physician fee schedule.

Source: MedPAC analysis of claims data for 100 percent of Medicare beneficiaries.

**FIGURE
2B-4****Growth in the volume of physician services per beneficiary, 2002–2007**

Note: E&M (evaluation and management).

Source: MedPAC analysis of claims data for 100 percent of Medicare beneficiaries.

Accountability Office, and others about the Medicare program and about physician services in particular.

- **Sustainability.** According to projections from the Boards of Trustees of the Medicare Trust Funds, the share of the nation's gross domestic product committed to Medicare is projected to grow to unprecedented levels. This growth will squeeze other priorities in the federal budget and could require taxpayers and beneficiaries to contribute greater amounts toward the Medicare program. Moreover, under intermediate cost assumptions, the Part A trust fund will exceed income by 2010 and will be exhausted in 2019 (Boards of Trustees 2008).¹⁵ While spending on physician services originates from the Part B trust fund, physician payment policy has an impact on Part A spending, as physicians are the key links to the health care delivery system.

Given these concerns about sustainability, a significant policy question is whether the growth in the volume of physician services represents necessary services. According to research from Dartmouth's Center for Evaluative Clinical Services on the wide variation in Medicare spending and rates of service use, some portion of the volume of services may be for care

that is not appropriate (Fisher et al. 2003a, Fisher et al. 2003b). Consequently, taxpayers are subsidizing Medicare's growing expenditures, some of which may be attributed to inappropriate care. Beneficiaries, too, bear a greater financial burden. To illustrate, the Part B premium went up during the past five years—from 2005 through 2009—by 44.7 percent, substantially above the 19.5 percent increase in the Social Security cost-of-living adjustments during those years.

Other questions about the volume of physician services have come from physicians. For instance, Welch (2004) describes how testing for cancer in people with no symptoms—rather than the unambiguous good it is often thought to be—can be harmful if it leads to false-positive results, anxiety, and a cascade of further testing and even unnecessary treatment. In another example, some cardiologists have voiced concerns about the rapid spread of CT angiography (Berenson and Abelson 2008, Redberg and Walsh 2008). The technology is diffusing rapidly despite relatively high radiation exposure for patients. Meanwhile, there is no evidence base showing improved patient outcomes. In such cases, physicians are asking whether their colleagues sometimes order tests, perform procedures, or otherwise furnish services in a manner that is too aggressive.

- **Equity.** The physician fee schedule—based on a FFS payment system—creates two mechanisms for payment inequity among physicians. First, it rewards physicians who increase the volume of services they provide regardless of the benefit of the service. Under the SGR system, volume growth in one service leads to an across-the-board reduction in fees for all services and all providers, not just those responsible for the volume growth. This problem affects specialties that have less opportunity to increase the volume of services they provide. For instance, compared with practitioners who furnish imaging, tests, or some procedure-based services, primary care practitioners focused on E&M services have less opportunity to increase the number of services they furnish. The main component of E&M services is face-to-face time spent with patients, making it difficult to fit more visits into a day's schedule.

Second, the fee schedule establishes considerable differences in physician compensation per hour. That is, for a given hour of a physician's time, differences in payment do not appear to be consistent with the

difficulty of furnishing the service. For example, physician compensation per hour for a type of advanced imaging—CT of parts of the body other than the head—averages 147 percent of the compensation rate for office visits by established patients.¹⁶

Among tests, interpretation of an electrocardiogram is compensated at an average rate that is fully 82 percent of the office visit average. Such differences raise concerns not just about equity but also about mispricing.

- Mispricing.** In previous work, the Commission made recommendations on improving the process through which CMS reviews the fee schedule’s relative values for accuracy (MedPAC 2006a). For example, the Commission recognized that many procedures had never been reexamined to determine whether the average time to perform them had decreased as a result of advances in technology, technique, and other factors. When such efficiency gains are achieved, the work value for the affected services should decline accordingly, and—through application of budget-neutrality requirements—the values for all other services would increase (assuming all else equal). But because of the problems with the review process, categories of services without new procedures—such as primary care—become undervalued over time and thus risk being underprovided.

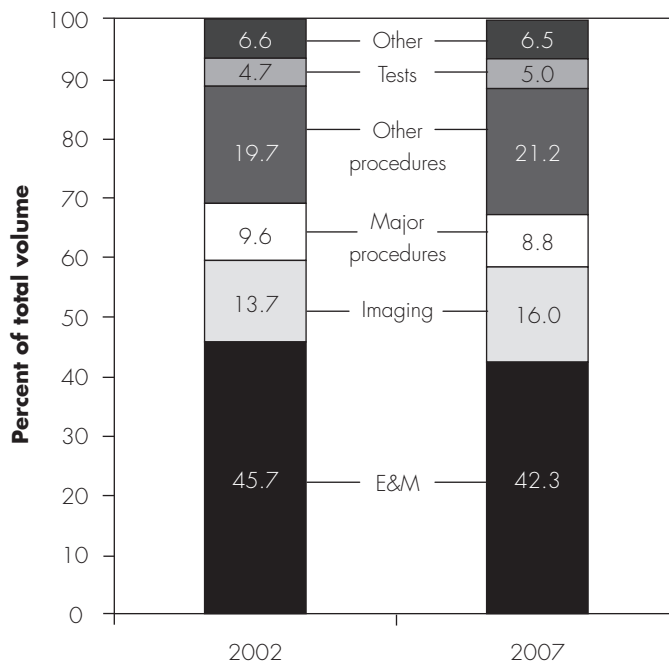
Separately, we are concerned that, in valuing practice expense (PE) for the fee schedule, CMS is making unnecessarily high assumptions about the cost of operating expensive pieces of equipment, such as CT scanners. We discuss ways to improve payments for expensive imaging services in a later section of this chapter.

CMS has begun a resource use measurement and reporting program

In its March 2008 report, the Commission recommended that the Congress require the Secretary to establish a process for measuring and reporting physician resource use on a confidential basis for two years. Since then, the Congress enacted MIPPA, which (under Section 131) requires the Secretary of Health and Human Services to establish a physician feedback program using claims data to provide physicians with confidential feedback reports that measure the resources they used in providing care to Medicare beneficiaries. CMS has already begun work on a program it refers to as the Physician Resource Use Measurement and Reporting Program that will comply with MIPPA’s confidential physician feedback requirement.

FIGURE 2B-5

Physician services volume has shifted toward imaging, tests, and other procedures and away from major procedures and E&M



Note: E&M (evaluation and management). Volume is units of service multiplied by relative value units from the physician fee schedule. Volume for both years is measured on a common scale, with relative value units for 2007.

Source: MedPAC analysis of claims data for 100 percent of Medicare beneficiaries.

Importance of physician education and outreach

Fundamentally, Medicare’s program to measure physician resource use and provide reports should be designed to encourage efficiency (defined by resource use and quality) and discourage inefficiency. The program is more likely to achieve these goals if the reports are designed to encourage thoughtful reflection and discussion among physicians about how their practice patterns drive resource use. To this end, as part of the reporting program, MIPPA requires the Secretary to conduct education and outreach activities for physicians. We learned from site visits with plans and physicians involved with resource use measurement programs that education and outreach—essential aspects of physician reporting programs—are often overlooked. To maximize its investment in measuring physician resource use, Medicare must pair it with education and outreach. Given CMS’s limited resources and numerous responsibilities, these new efforts will be challenging.

CMS should partner with other entities—including physician organizations, specialty societies, and medical boards—to support physicians in interpreting resource use reports and using them to improve practice patterns. Once Medicare’s physician measurement and reporting program is implemented and refined based on experience, over time it can be extended for other uses, such as public reporting and payment policies.

How should Medicare payments for physician services change in 2010?

Our payment adequacy analysis shows that beneficiaries’ overall access to physician services is good but that a small share of beneficiaries—particularly those looking for new primary care physicians—experience difficulties. Although the rate of volume growth in per beneficiary service use slowed in 2007, it continues to increase each year. We remain concerned about the impact of this continual growth on Medicare spending and ultimately the sustainability of the Medicare program overall. Geographic variation in the use of supply-sensitive services raises questions about the value of this volume growth. Also, volume growth in certain procedures and undervaluing of primary care services lead to inequities in the fee schedule.

In addition to analyzing overall payment adequacy, we also consider changes in input costs for physician services projected for the coming year and a productivity adjustment. For 2010, CMS forecasts that input prices for physician services will increase by 2.4 percent. This forecast includes an estimated 2.8 percent increase in physician work compensation (physicians’ wages and benefits) and PE cost increases of 1.9 percent. For these forecast estimates, we use information that CMS collects from various data sets and surveys. CMS calculates a weighted average of these input price changes from survey data collected by the AMA in 2000.

These forecasted increases are averaged across all physicians. Some physicians may see higher input costs. For example, physicians who purchase equipment to enable them to prescribe electronically may incur higher input costs in the year of the purchase. MIPPA established some financial incentives—involving new Medicare dollars—for physicians to invest in electronic prescribing equipment, however. For 2009 and 2010, physicians are eligible for an additional 2 percent bonus on all their

allowed charges from the physician fee schedule if they satisfy electronic prescribing requirements; for 2011 and 2012, the bonus is 1.0 percent; and for 2013, it is 0.5 percent. MIPPA requires that physicians who do not use electronic prescribing receive a payment reduction on their Medicare fees, starting in 2012.

In its update recommendation, the Commission takes into account three factors that summon the need to maintain cost pressures. First, the Commission strongly promotes the policy principle that Medicare’s payment systems should encourage efficiency in the provision of Medicare services. Competitive markets demand continual efficiency improvements from the workers and firms who pay the taxes used to finance Medicare. Maintaining cost pressure is a key to achieving efficiency improvements. Another consideration that calls for constraint is the impact on beneficiaries’ out-of-pocket spending liability. Updates for physician services carry with them increases to beneficiaries’ cost-sharing and premium amounts. Third, the Medicare program faces harrowing fiscal sustainability problems, which require committed efforts to slow the growth in Medicare spending.

RECOMMENDATION 2B-1

The Congress should update payments for physician services in 2010 by 1.1 percent.

RATIONALE 2B-1

Our analysis of the most recently available data finds that, overall, Medicare payments for physician services are adequate. Access, supply, and volume measures suggest that most Medicare beneficiaries are able to obtain physician services with few or no problems. In our 2008 patient survey, Medicare beneficiaries (age 65 or older) were more likely to report better access to physicians than privately insured individuals (age 50 to 64). However, the Commission is concerned about beneficiary access to primary care services and practitioners and reaffirms its previous (June 2008) recommendation on this topic in the next section of this chapter. Moreover, the large reduction in fees (21 percent) for 2010 required under current law could reduce overall access to physician services for Medicare beneficiaries. Thus, we recommend that the Congress change current law to update the physician fee schedule conversion factor for 2010 by a modest amount—1.1 percent—the same as the Congress legislated for 2009.

IMPLICATIONS 2B-1

Implications are discussed with Recommendation 2B-3.

The increasing importance of primary care

The Commission considers access to high-quality primary care essential for a well-functioning health care delivery system; yet the undervaluation of primary care is currently threatening its existence. In fact, research suggests that reducing reliance on specialty care may improve the efficiency and quality of health care delivery. States with higher ratios of primary care physicians to specialists have better health outcomes and higher scores on performance measures (Baicker and Chandra 2004, Starfield et al. 2005). Moreover, areas with higher rates of specialty care per person are associated with higher spending but not improved access, quality, health outcomes, or patient satisfaction (Fisher et al. 2003a, Fisher et al. 2003b, Kravet et al. 2008, Wennberg et al. 2006). Cross-national comparisons have demonstrated that nations with greater dependence on primary care have lower rates of premature deaths and deaths from treatable conditions, even after accounting for differences in demographics and gross domestic product (Starfield and Shi 2002).

Given the importance of primary care, the Commission is concerned about ensuring beneficiary access to primary care services and practitioners. The share of U.S. medical school graduates entering primary care residency programs has declined over the last decade. In recent years, international medical graduates have filled this gap, but the trend may not adequately meet growing demand in future years. Also, the proportion of third-year internal medicine residents becoming generalists is falling because a growing share choose to subspecialize or become hospitalists after residency (Bodenheimer 2006, MedPAC 2008d). Therefore, although the Government Accountability Office found that the number of physician residents in primary care training programs increased 6 percent over the last decade, it is important to understand that many of these residents do not remain in primary care practice (GAO 2008).

Although many factors influence the choices medical students and residents make about their career specialty, the undervaluation of primary care services is a likely barrier for many practitioners in selecting a focus for their practice. While several policy changes have shifted some Medicare spending toward primary care services, the Commission considers these shifts to be insufficient and reaffirms the need for a further fee-schedule adjustment for primary care, as recommended in our June 2008 report.

Some recent policy changes increase payments for primary care services

Recent changes in the physician fee schedule affect payments for primary care services and could help address some of the Commission's concerns. In particular, payments have increased for many E&M services—including most office and home visits and visits to patients in certain nonacute facility settings (e.g., skilled nursing facilities). Primary care physicians derive much of their Medicare payments from these services.¹⁷ While other practitioners may bill for these services, they do so less frequently.

CMS has implemented two increases—one affecting work RVUs and the other affecting PE RVUs—in payments for primary care services.

- The 2007 five-year review of the fee schedule's relative values for physician work resulted in payment increases for most primary care services. For some services, the increases in relative values for physician work were large (30 percent or more). For other primary care services, however, relative values for physician work did not change. Comparing the relative values used in 2006 with those for 2009, the increase in work relative values for primary care services averaged 25.9 percent.¹⁸ To make the results of the 5-year review budget neutral, an adjustment (–6.4 percent) is applied to the fee schedule's conversion factor.
- For 2007, CMS changed its method for determining the fee schedule's relative values for PE to improve the method's accuracy.¹⁹ This change, too, had the effect of increasing the fee schedule's payment rates for primary care. For primary care services, the effect was smaller than the five-year review of physician work. Comparing PE relative values for primary care in 2006—the year before the change in the PE method—and in 2009, the average increase was 5.9 percent.

Comparing payment rates in 2006 with payment rates in 2009, we calculate that these two changes in policy—and including the effects of the budget-neutrality adjustment for the five-year review of physician work—have increased payment rates for primary care by a total of 10.6 percent. This total includes a weighted average of the changes in the physician work and PE relative values. That average is 16.2 percent. The total also includes the –4.8 percent difference between the conversion factor for 2006 and the conversion factor for 2009 (adjusted for budget neutrality, as described above).

In addition to these changes in the physician fee schedule, the process for review of the fee schedule's relative values has improved—in response to Commission recommendations (MedPAC 2006a)—in a way that could result in higher payments for primary care. Briefly, our recommendations addressed:

- establishing a standing panel of experts to help identify overvalued services and to review recommendations from the AMA/Specialty Society Relative Value Scale Update Committee (RUC),
- analyzing claims and other data to identify services that may be misvalued, and
- establishing a process to ensure that all services are reviewed periodically.

Since we made these recommendations, CMS and the RUC have taken several steps to improve the review process. While not adopting the Commission's recommendation about establishing a standing panel of experts separate from the RUC, the review of potentially misvalued services is no longer limited to a review that occurs once every five years. Instead, CMS and the RUC are now engaged in an ongoing review to look for services that may be misvalued. Further, to screen services and identify ones that may be misvalued, claims data are analyzed to flag services with certain characteristics—such as high-volume growth and changes in site of service—that may be signs they are misvalued.²⁰

Medical home programs could also support primary care for Medicare beneficiaries. The Commission recommended that Medicare establish a medical home pilot program to test whether beneficiaries in medical home programs—that meet stringent criteria—receive higher quality, more coordinated care without incurring higher Medicare spending (MedPAC 2008d). Many qualifying medical homes would be geriatric practices, primary care practices, or multispecialty practices. Single-specialty practices that focus on care for certain chronic conditions, such as endocrinology for people with diabetes, could also qualify.

CMS is scheduled to begin a medical home demonstration in 2010. Although somewhat smaller in scope than the Commission's recommended pilot program, CMS's demonstration also focuses on medical practices that treat chronic conditions. Under CMS's demonstration, per member per month payments to medical homes will vary from \$27 to \$100, depending on whether a medical home offers basic or more advanced services and depending on

individual patients' health status. The demonstration is scheduled to end in 2012; an evaluation report is expected in 2013.

Further increases to payments for primary care are needed

Despite these payment increases, the Commission sees urgency in the need to ensure access to primary care services and practitioners. As shown previously, beneficiaries seeking a new primary care physician report more problems doing so than those seeking a new specialist. Further, the specialty choices of medical students and residents could exacerbate this concern. Meanwhile, the undervaluation of primary care continues. It could be reduced somewhat if the Commission's recommendation on changing payments for expensive imaging services—presented later in this chapter—is adopted. One implication of the recommendation is that it will redistribute fee schedule payments from imaging services to other services, including primary care. Nonetheless, the Commission wants to reiterate the importance of adequately valuing primary care to ensure its access for Medicare beneficiaries.²¹

To promote the use of primary care and redistribute payments toward services furnished by primary care physicians, the Commission recommends that—within the physician fee schedule—the Congress establish by statute a payment adjustment for primary care. This recommendation was included in our June 2008 report and is repeated in this report to emphasize its importance. The recommended adjustment would raise payments for selected primary care services furnished by physicians, advanced practice nurses, and physician assistants with practices focused on primary care. Services we defined as primary care are a subset of E&M services: office and home visits and visits to patients in certain nonacute facility settings (skilled nursing, intermediate care, long-term care, nursing home, boarding home, domiciliary, and custodial care).

The fee schedule adjustment would also signal a major change in the purpose of the physician fee schedule. Currently, it is intended only to account for differences in resource costs among services. By contrast, using the fee schedule as a vehicle for promoting primary care would be a very different role for the payment system. Instead of just accounting for current resource costs, a payment system that includes a fee schedule adjustment for primary care could look ahead to resources the nation needs to achieve a reformed delivery system.

Details on its recommendation are presented in the Commission's June 2008 report (MedPAC 2008d). Briefly:

- The adjustment would target practitioners who focus on primary care services. As an example, CMS could define such practitioners as those who mostly furnish primary care services instead of other services, such as procedures, imaging, and tests.
- To make the adjustment budget neutral, it would be funded by a reduction in the conversion factor for other services. Thus, the adjustment would lead to lower payment rates for non-primary-care services furnished by practitioners who do not focus on primary care. Even for practitioners receiving the adjustment, payment rates would go down for the services they furnish that are not office visits, home visits, or visits to patients in certain nonacute facility settings.²²
- The adjustment would require a decision about its level. Because there is no one formula or analytical approach to making the decision, judgment is required. In making that judgment, there are two precedents to consider regarding fee schedule adjustments. Currently, a 10 percent bonus is paid for services furnished in a health professional shortage area. Through 2007, there was a 5 percent adjustment for services furnished in areas defined in the statute as physician scarcity areas.

RECOMMENDATION 2B-2

The Congress should establish a budget-neutral payment adjustment for primary care services billed under the physician fee schedule and furnished by primary-care-focused practitioners. Primary-care-focused practitioners are those whose specialty designation is defined as primary care and/or those whose pattern of claims meets a minimum threshold of furnishing primary care services. The Secretary would use rulemaking to establish criteria for determining a primary-care-focused practitioner.

RATIONALE 2B-2

A fee schedule adjustment for primary care would help overcome the undervaluation of primary care services and help ensure beneficiaries' access to primary care services and practitioners. Because primary care is essential for a well-functioning health care delivery system, the Commission considers it important to increase its value in Medicare. If commercial insurers, Medicaid programs,

and other payers use Medicare's physician fee schedule as a basis for their payment rates, the fee schedule adjustment could promote primary care throughout the health care system.

IMPLICATIONS 2B-2

Spending

- As a budget-neutral policy, the fee schedule adjustment would not affect federal benefit spending relative to current law.

Beneficiary and provider

- For beneficiaries, the adjustment could improve access to primary care services.
- For physicians and other providers, the adjustment would have redistributive effects depending on the services they furnish.

Changing payments for expensive imaging services

As described earlier, the distribution of payments for physician services is distorted by incentives in the fee schedule that encourage the overuse of some physician services and the underuse of others. The Commission recognizes that there has been rapid technological progress in diagnostic imaging, which has enabled physicians to diagnose and treat illness with greater speed and precision. However, we are concerned that rapid volume growth of costly imaging services over the past several years may signal that they are mispriced.²³ We believe there is evidence that the PE RVUs for services such as MRI and CT scans are too high. Because RVUs are set in a budget-neutral manner, high RVUs for imaging procedures lead to lower RVUs for primary care and other services. In addition, rapid volume growth of imaging can lead to an across-the-board reduction in fees for all other services under the SGR system.

There are other reasons to be concerned about the potential mispricing of imaging services. First, imaging RVUs that are set too high could encourage providers to purchase machines and use them as frequently as possible. According to a physician quoted in a recent article, "If you have ownership of the machine ... you're going to want to utilize the machine" (Berenson and Abelson 2008). Second, the rise in imaging has increased beneficiaries' exposure to ionizing radiation, which is a risk factor for developing cancer. According to preliminary findings

How the physician fee schedule pays for imaging services

Most of the payment for the technical component (TC) of an imaging study consists of the practice expense (PE) relative value unit (RVU), which is divided into direct costs (nonphysician clinical staff, medical equipment, and medical supplies) and indirect costs (administrative staff, office rent, and other expenses). In contrast, most of the payment for the professional component consists of the work RVU. The TC is generally larger than the professional component. For example, when a provider bills for both the technical and professional components of MRI of the brain, with and without contrast (CPT code 70553), the TC accounts for 88 percent of the total payment and the professional

component accounts for 12 percent (based on national average payment amounts).

In 2007, CMS made major changes to the method for calculating PE RVUs. When Medicare fully implements these changes in 2010, PE RVUs will decrease by 8 percent for major procedures and by 9 percent for imaging services, while they will increase by 7 percent for evaluation and management services and by 3 percent for other (nonmajor) procedures and tests (MedPAC 2007). Even with the aggregate drop in PE RVUs for imaging services by 2010, the RVUs of certain imaging services may still be overstated. ■

from a scientific committee, the U.S. population's per capita dose of radiation received from diagnostic imaging increased by 600 percent from 1980 to 2006 (Mettler et al. 2008). Much of this increase was driven by rapid growth of CT and nuclear medicine studies. Although an individual's risk of developing cancer from a single test is small, these risks are being applied to a growing number of patients. Between 1.5 percent and 2 percent of cancers in the U.S. may be attributable to radiation from CT studies (Brenner and Hall 2007).

In the following sections, we examine volume growth of imaging services, explain why prices for certain services appear to be inaccurate, and recommend that CMS use a normative standard to estimate the per service cost of expensive imaging machines.

Volume of imaging services has grown rapidly in recent years

While the volume of all physician services grew by 23.4 percent per beneficiary between 2002 and 2007, the volume of imaging services paid under the physician fee schedule grew by 44.4 percent per beneficiary (Figure 2B-4, p. 100). Although the growth of imaging services slowed to 3.8 percent between 2006 and 2007, it remained higher than growth in total physician services (2.9 percent) (Table 2B-5 p. 99). From 2002 to 2007, the cumulative volume of certain advanced imaging services per beneficiary rose even faster than the average across all imaging tests: CT studies (excluding head scans)

increased by 78.8 percent and MRI studies (excluding brain scans) grew by 70.1 percent. More than one-third of imaging spending in 2006 was for CT and MRI studies, which reflects both rapid growth and higher payment rates for those services (MedPAC 2008a). Positron emission tomography (PET) procedures have also experienced strong growth: Between 2006 and 2007, the number of PET scans performed in physician offices and freestanding centers increased by 14 percent.²⁴ At least some of this growth was probably driven by Medicare's coverage expansions for PET over the last several years (CMS 2005a, CMS 2003).

Estimating the cost of expensive imaging equipment

Medicare pays providers separately for performing an imaging study (the technical component (TC)) and for interpreting the results and writing a report (the professional component) (see the text box for more information on how the physician fee schedule pays for imaging services). The cost of medical equipment is a significant portion of the PE RVU for the TC of expensive imaging studies, such as MRI and CT scans. For example, the equipment accounts for nearly 90 percent of the total direct cost of the TC of MRI of the brain, with and without contrast (Current Procedural Terminology (CPT) code 70553). By comparison, equipment costs account for only about half of total direct costs of the TC of a chest X-ray (CPT code 71020).

CMS's estimates of how long it takes to perform expensive imaging services may merit review

CMS bases its estimate of the number of minutes imaging equipment is used for a service on the amount of time it takes a radiology technician to perform the study.²⁵ These time estimates were recommended by a practice expense committee established by the American Medical Association/Specialty Society Relative Value Scale Update Committee (RUC).²⁶ This committee developed the time estimates for most MRI and computed tomography (CT) services in 2002 or 2003. Recent advances in CT technology—such as the development of 64-channel CT scanners—have made it possible to scan patients faster (Hamon et al. 2007, Mitka 2006).²⁷ Similarly, the introduction of more powerful 3 Tesla MRI machines has reportedly reduced imaging time and increased patient throughput (Clarke and Rahal 2004, Hinesly 2006).²⁸ Even providers who are using older imaging machines could be performing more

studies in less time as they become more familiar with the procedures and equipment.³⁰ The time estimates used by CMS for MRI and CT studies may not reflect reductions in scanning time, which could result in CMS overstating equipment and clinical staff costs. CMS could request that the RUC review the time estimates for these services to ensure that they are accurate.

CMS announced in 2008 that it had sent a list of about 100 codes that experienced rapid volume growth to the RUC for review (CMS 2008c). This list included 13 CT codes and 1 MRI code, of a total of about 130 CT and MRI codes in the fee schedule.³¹ The time estimates for other CT and MRI codes might also merit review to ensure their accuracy. In addition, the Commission previously suggested that CMS regularly review and update the purchase prices of expensive equipment and supplies (MedPAC 2006b). ■

To calculate the per service cost of medical equipment, CMS multiplies the number of minutes the equipment is used for that service by its cost per minute (see the text box for a discussion of how CMS estimates the number of minutes it takes to perform imaging services). To derive a machine's cost per minute, CMS uses a formula to spread the machine's purchase price over the number of minutes it is projected to be used during its useful life, taking into account the cost of capital, maintenance costs, and other factors (CMS 1997, MedPAC 2006b). To calculate the amount of time equipment is expected to be used per year, CMS multiplies the number of hours that providers are open for business by the percent of time the equipment is operated. CMS assumes that all providers are open 50 hours per week, on average, and that all medical equipment (including imaging equipment) is operated 50 percent of the time that practices are open, or 25 hours per week.²⁹ In this chapter, we refer to the assumption of 25 hours per week as the "equipment use factor."

When CMS implemented resource-based PE RVUs in 1999, it used an equipment use factor of 25 hours per week because the agency was unable to obtain valid information on how frequently various equipment was used across procedures (CMS 1997). Thus, the equipment use factor is

not based on empirical evidence. However, if machines are used more frequently, their fixed costs are spread across more units of service, resulting in a lower cost per service. In this instance, such equipment would be overvalued by CMS. Conversely, the cost of a machine used less than 25 hours per week is spread across fewer units of service, resulting in a higher cost per service. Such equipment would be undervalued. The estimated cost of equipment is very sensitive to changes in the equipment use factor. For example, increasing the use factor from 25 hours per week to 45 hours per week would reduce the estimated cost per minute of equipment by 44 percent.

Problems with Medicare's equipment use factor for expensive imaging machines

CMS's decision to set the equipment use factor at 25 hours per week instead of a higher level has led to higher PE RVUs for imaging services. Higher payment rates encourage providers with low expected volume to purchase expensive imaging machines because they can cover the fixed cost of the machines even if they are operated at less than full capacity. The Commission is concerned about the diffusion of costly imaging machines because more machines are associated with higher

**TABLE
2B-6**

NORC's survey indicates that imaging providers are using CT and MRI machines more than CMS assumes

Type of provider	Hours used per week		
	NORC survey		CMS's current assumption
	Mean	Median	
CT providers	42	40	25
MRI providers	52	46	25

Note: CT (computed tomography). The survey's sample included 133 physician offices and freestanding imaging centers in Boston, MA; Miami, FL; Greenville, SC; Minneapolis, MN; Phoenix, AZ; and Orange County, CA.

Source: NORC 2006, CMS 1997.

overall volume. In a recent article, Baker and colleagues estimated that each additional MRI scanner in a market is associated with 733 additional MRI studies among Medicare beneficiaries, and each additional CT machine is associated with 2,224 additional CT scans (Baker et al. 2008). The article also estimates that the number of MRI scanners in the U.S. more than doubled between 1995 and 2004 and the number of CT scanners increased by more than 50 percent.

A survey developed by the AMA and the specialty societies (the Physician Practice Information Survey) is asking practices how frequently they use certain high-cost equipment, including MRI and CT machines (Richardson et al. 2007). The goal of these questions is to collect data that could be used to update Medicare's equipment use factor. This survey is still in the field, and we do not know if there will be a sufficient number of responses to these questions or if the responses will be representative.

In 2006, the Commission sponsored a survey by NORC of imaging providers in six markets, which found that MRI and CT machines are used much more than the 25 hours per week that CMS assumes (Table 2B-6). According to data from this survey, MRI scanners are used 52 hours per week, on average (median of 46 hours), and CT machines are operated 42 hours per week, on average (median of 40 hours) (NORC 2006).³² Although the survey results are not nationally representative, they are representative of imaging providers in the six markets included in the survey. We also analyzed data from a 2007 survey of CT providers by IMV, a market research firm (IMV Medical Information Division 2008). IMV data are widely used in the industry and have also appeared in published studies

(Baker et al. 2008, Baker and Atlas 2004). Using IMV's data on 803 nonhospital CT providers (imaging centers, clinics, and physician offices), we calculated that the average provider uses its CT scanner 50 hours per week, which is twice the number CMS assumes.³³ The IMV survey also found that nonhospital providers increased the average number of procedures per CT machine by 31 percent from 2003 to 2007, which indicates that providers either used their machines more hours per day or performed more scans per hour (IMV Medical Information Division 2008).³⁴

Revising the equipment use factor

CMS acknowledges that its current equipment use factor—which was not based on empirical data—is not accurate for all types of equipment but says that it lacks sufficient evidence to justify an alternative rate (CMS 2006). The RUC has recommended that CMS consider adopting a higher use factor for all equipment, while offering specialty societies an opportunity to provide data supporting a lower factor for specific equipment (Rich 2007).

The Commission's preferred approach is for Medicare to set a normative standard for expensive imaging equipment that is based on a level of use that Medicare wants to encourage. In other words, Medicare should adopt a standard that would discourage providers from purchasing

**TABLE
2B-7**

CMS's estimated purchase prices for selected diagnostic imaging equipment, 2008

Type of equipment	Purchase price
PET-CT room	\$2,136,000
MR room	1,605,000
PET room	1,329,000
CT room	1,284,000
Gamma camera system, single-dual head	565,000
Vascular ultrasound room	466,000
General ultrasound room	370,000
Fluoroscopy table	282,000
Echocardiography	248,000
Basic radiology room	128,000

Note: PET (positron emission tomography), CT (computed tomography), MR (magnetic resonance). An imaging room includes the cost of the imaging machine, power injector, and monitoring system (CMS 2005b). A gamma camera system is used for nuclear medicine procedures. Prices have been rounded to the nearest thousand.

Source: CMS, direct practice expense input file for 2008.

expensive machines unless they could use them at full capacity. Because imaging machines will likely have some down time due to maintenance or patient cancellations, a use factor of 45 hours per week is a reasonable normative standard. The 2006 NORC survey found that several imaging providers operate their CT and MRI machines more than 45 hours per week, demonstrating that this level of use is achievable (MedPAC 2006b). On the basis of CMS’s assumption that practices are open 50 hours per week, an equipment use factor of 45 hours would imply that equipment is used 90 percent of the time that providers are open.

If Medicare were to adopt a standard of 45 hours per week for costly imaging machines, an important question would be how to define “costly.” As Table 2B-7 shows, diagnostic imaging equipment has a wide range of estimated purchase prices. CMS assumes that several types of machines cost at least \$1 million: PET-CT, MRI, PET, and CT. Other commonly used equipment costs between \$100,000 and \$1 million, such as a gamma camera system (used for nuclear medicine procedures) and general ultrasound. The Commission believes that CMS should adopt a standard of 45 hours per week for all diagnostic imaging machines that cost at least \$1 million and that the agency should explore applying this standard to imaging equipment that costs less. We recognize that this change would require a change in statute because the Balanced Budget Act of 1997 requires CMS to use “actual data” on equipment use to calculate PE RVUs (Public Law 105–33, Section 4505).

Impact of increasing the equipment use factor for expensive imaging machines

A normative standard of 45 hours per week for the use of expensive imaging equipment would reduce PE RVUs for services that use such equipment, thereby discouraging low-volume providers from purchasing these machines.

In addition, increasing the equipment use factor would increase PE payments for other physician services. The additional RVUs for other physician services would come from:

- lower PE RVUs for expensive imaging services (i.e., a redistribution of money within the physician fee schedule), and
- money that would have been returned to the Part B trust fund under the outpatient cap policy of the Deficit Reduction Act of 2005 (DRA).

TABLE 2B-8

Increasing the equipment use factor for imaging from 25 hours to 45 hours per week would redistribute practice expense RVUs from imaging to other physician services

Type of service	Increase use factor for:	
	MRI and CT machines	MRI, CT, and gamma camera systems
Evaluation and management	1.1%	1.5%
Imaging	-7.9*	-9.7*
Major procedures	1.0	1.4
Other procedures	2.6	3.0
Tests	3.8	4.6

Note: RVU (relative value unit), CT (computed tomography). This model assumes that reduced RVUs for imaging services would be redistributed to other services and does not account for the effect of the outpatient cap on imaging payments adopted by the Deficit Reduction Act of 2005. The baseline in the model uses the practice expense RVUs that fully reflect the changes that CMS made to the practice expense method for 2007 (CMS is phasing in these changes between 2007 and 2010).
* The impact on imaging payments would be significantly smaller than shown here because of the interaction with the outpatient cap policy.

Source: NORC 2008.

The size of the redistribution from imaging to other physician services would depend on the types of imaging equipment to which a higher equipment use factor would apply. For illustrative purposes, we contracted with NORC to model the impact on PE RVUs of increasing the equipment use factor from 25 hours to 45 hours per week for different kinds of machines.³⁵ This model assumes that reduced RVUs for imaging services would be redistributed to other physician services.³⁶ It does not account for the effect of a provision of the DRA, which capped physician fee schedule rates for the TC of imaging services at the level of hospital outpatient PPS rates. This provision reduces the fee schedule amounts for many imaging services—particularly advanced imaging such as CT and MRI studies—and returns the savings to the Medicare Part B trust fund (i.e., it is not budget neutral).³⁷

Without considering the effects of the DRA’s outpatient cap, increasing the equipment use factor to 45 hours per week for MRI and CT scanners would reduce PE RVUs for imaging services by 7.9 percent, on average (Table 2B-8). Because of the outpatient cap, the actual reductions to imaging payments that would result from a higher equipment use rate would be significantly smaller. As a result of lower PE RVUs for imaging, PE RVUs for tests,

other procedures, E&M services, and major procedures would increase. Based on 2005 volume and the 2008 conversion factor, almost \$900 million per year would be redistributed from imaging to other services.

Hospitals offer access to MRI and CT services in most rural areas

Policymakers may be concerned about the impact of reducing payment rates for expensive imaging services on access to care, particularly in rural areas. However, it is important to note that the change recommended in this section would apply to physician fee schedule rates but not hospital outpatient rates. Most rural hospitals offer access to MRI and CT services. According to our analysis of data from the American Hospital Association's 2006 AHA annual survey of hospitals, 95 percent of rural hospitals provide CT services in their community (either directly or through an affiliated provider) and 79 percent of rural hospitals provide MRI services in their community (AHA 2007). Therefore, if rural areas do not have physician offices or freestanding centers with MRI and CT machines, most of these communities have access to such services through a hospital.

RECOMMENDATION 2B-3

The Congress should direct the Secretary to increase the equipment use standard for expensive imaging machines from 25 hours to 45 hours per week. This change should redistribute relative value units from expensive imaging to other physician services.

RATIONALE 2B-3

The Commission is concerned that the rapid volume growth of costly imaging services in recent years may signal that they are mispriced. Medicare currently assumes that costly imaging machines, such as MRI and CT scanners, are used 25 hours per week (50 percent of the time that providers are assumed to be open for business). Setting the equipment use factor at 25 hours per week—rather than at a higher level—has led to higher PE RVUs for these services. Higher payment rates encourage providers with low expected volume to purchase expensive imaging machines. Once providers purchase machines, they have an incentive to use them as frequently as possible. Indeed, there is evidence that MRI and CT machines are used much more frequently than Medicare assumes. Medicare should adopt a normative standard in which providers are assumed to use expensive imaging machines at close to full capacity (45 hours per week, or 90 percent of the time that providers are assumed to be open). Such a normative standard—which would

require a change in statute—would discourage providers from purchasing expensive imaging equipment unless they had sufficient volume to justify the purchase. The Secretary should start by adopting a standard of 45 hours per week for all diagnostic imaging machines that cost at least \$1 million and should explore applying this standard to imaging equipment that costs less.

IMPLICATIONS 2B-1 AND 2B-3

Spending

- Our estimates indicate that these recommendations would increase federal program spending by more than \$2 billion in the first year and by more than \$10 billion over five years, relative to current law. Enactment of any positive update for 2010 would increase spending relative to current law, because current law calls for substantial negative updates from 2010 through at least 2016 under the current SGR system.

Beneficiary and provider

- These recommendations would not affect providers' willingness or ability to serve Medicare beneficiaries.
- Relative to current law, these recommendations would increase beneficiary liabilities—namely, the monthly Part B premium and per service coinsurance amounts.
- Under Recommendation 2B-3, PE payments would be redistributed from expensive imaging services to other physician services.

Future work on imaging services

The Commission recognizes that Medicare's payment policy is not the only factor that could be driving inappropriate use of imaging services. Other factors could include:

- lack of familiarity with or adherence to clinical guidelines for the appropriate use of imaging services by some physicians,
- incentives in the FFS payment system to generate more volume, and
- financial incentives for physicians who own imaging equipment to order additional tests.

We plan to explore these areas in future work. For example, we may examine policy options to encourage the use of imaging that is consistent with clinical guidelines developed by specialty societies. We may also explore expanding the unit of payment to cover multiple discrete services, which could promote greater efficiency.

Analysis of payment adequacy for ambulatory surgical centers

Having an ownership stake in an ambulatory surgical center (ASC) is a source of revenue for many physicians, as 91 percent of ASCs have at least one physician owner (ASC Association 2008). For this reason, we discuss Medicare's payment adequacy for ASCs in the chapter on payment adequacy for physician services.

An ASC is a distinct entity that exclusively furnishes outpatient surgical services to patients not requiring hospitalization and for which the expected duration of services would not exceed 24 hours after admission. Almost all ASCs are freestanding facilities. In addition to ASCs, beneficiaries can receive surgical services in inpatient and outpatient hospital settings and sometimes in physician offices.

Since 1982, Medicare has made payments for surgical procedures provided in ASCs. When performing surgical procedures in ASCs, physicians receive separate payments for their professional services under the Medicare physician fee schedule.

To receive payments from Medicare, ASCs must meet Medicare's conditions of coverage for ASCs, which specify minimum standards for: administration of anesthesia, quality evaluation, operating and recovery rooms, medical staff, nursing services, and other areas.

Medicare uses a fee schedule to pay for a bundle of facility services provided by ASCs, such as nursing, recovery care, anesthetics, and supplies. This payment system has undergone substantial changes in recent years (see text box, pp. 112–115). The most significant changes occurred in 2008, which saw a substantial increase in the number of surgical procedures covered under the ASC payment system, allowance of certain ancillary services to be paid separately, and large changes in payment rates for many procedures. To help ASCs adjust to the changes in payment rates, CMS is phasing in the new payment rates over four years.

In general, under the revised payment system ASCs receive payment for surgical procedures defined by billing codes in the range 10000 through 69999. However, in the interest of safety CMS does not pay for services it deems as posing significant risk to the patient if provided in an ASC or if the surgical procedure is expected to require an overnight stay.

About 3,400 surgical procedures are covered under the ASC payment system. For most covered surgical procedures, CMS uses the procedure's relative weight from the hospital outpatient PPS as the basis for the payment rate, reflecting a previous Commission recommendation (MedPAC 2004). For most covered surgical procedures, the payment rate is the product of its relative weight and a conversion factor set at \$41.39 in 2009. An important exception is procedures that are performed predominantly in physician offices and that were first covered under the ASC payment system in 2008. Payment for these "office-based" procedures is the lesser of the amount derived from the outpatient PPS relative weights or the nonfacility practice expense amount indicated on the physician fee schedule. CMS set this limit on the rate for office-based procedures to prevent migration of these services from physician offices to ASCs for financial reasons. Most procedures (90 percent) have their payment rates based on the outpatient PPS relative weights.

Also, the ASC payment system now generally reflects the hospital outpatient PPS in terms of which ancillary services are paid separately and which are packaged with the associated surgical procedure. Specifically, starting in 2008 ASCs receive separate payment for these ancillary services:

- radiology services that are integral to a covered surgical procedure if separate payment is made for the radiology service in the outpatient PPS,
- brachytherapy sources implanted during a surgical procedure,
- all pass-through and non-pass-through drugs that are paid separately under the outpatient PPS when provided as part of a covered surgical procedure, and
- devices with pass-through status under the outpatient PPS.

In the following sections, we consider the adequacy of payments for ASCs, focusing our analysis on ASCs' revenue from Medicare, beneficiaries' access to care, ASCs' access to capital, and the effects the changes to the ASC payment system that began in 2008 have had on ASC payment rates. As we cover these topics, we caution that the effect of Medicare payments on the financial health of ASCs is limited because Medicare spending accounts for about 20 percent of ASCs' overall revenue (Deutsche Bank 2008a, MGMA 2006).³⁸

Recent changes to the ASC payment system

In 2008, CMS made substantial changes to the payment system it uses to reimburse ambulatory surgical centers (ASCs). In this text box, we discuss the details of the ASC payment system before and after the changes made in 2008.

ASC payment system before 2008

Before 2008, the payment system for ASCs assigned procedures into one of nine payment categories on the basis of how much CMS estimated it would cost ASCs to furnish the procedure. Before 2007, all services in the same category had the same payment rate. In 2007, CMS satisfied a requirement in the Deficit Reduction Act of 2005 by setting payment rates for each procedure to the lesser of the standard ASC rate for the procedure's payment category or the standard payment rate for the procedure under the outpatient prospective payment system (PPS). Only 275 of the 2,571 procedures covered under the ASC payment system and 7 percent of the service volume in 2007 were subject to this cap.

Although the payment rates for each service are uniform across all ASCs, CMS adjusts the actual payments ASCs receive from Medicare for geographic differences in labor costs. Before 2008, CMS used hospital wage indexes from the inpatient PPS to adjust 34.45 percent of each service's payment rate for geographic variations in labor costs. The remaining 65.55 percent of the payment rate was not adjusted.

Most of the ASC payment categories before 2008 included at least 100 procedures, which were often clinically unrelated. The use of such broad groups made it likely that payment rates for many procedures did not accurately match the cost of furnishing them. Consequently, it is likely that many procedures were underpaid or overpaid. These payment inaccuracies may have manifested themselves in ASC service volume that historically has been concentrated in a relatively small number of procedure codes. In 2007, for example, 20 procedure codes accounted for 74 percent of total ASC service volume for Medicare beneficiaries. The Commission has sought to alleviate the overpayments and underpayments and in 2004

recommended that the ASC payment system be aligned with the outpatient PPS (MedPAC 2004).

Before 2008, services eligible for payment under the Medicare ASC payment system had to meet the following criteria:

- They must be a surgical procedure.
- They must meet two site-of-service volume standards:
 - They must be commonly performed in hospital inpatient settings but could also be safely performed in outpatient facilities.
 - They could not be commonly performed in physician offices because procedures provided in physician offices were assumed not to require the more elaborate facilities of an ASC.
- They must not exceed 90 minutes of surgical time or 4 hours of recovery time; anesthesia for the procedure could not last longer than 90 minutes.
- They could not result in one or more of the following:
 - excessive blood loss,
 - major or prolonged invasion of body cavities,
 - generally emergent or life-threatening nature.

Changes made to the ASC payment system in 2008

The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA) required the Secretary to implement a revised payment system for services furnished in ASCs. This revised payment system had to be in use not before January 1, 2006, and not later than January 1, 2008. CMS satisfied this legal requirement by launching a revised payment system on January 1, 2008.

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Recent changes to the ASC payment system (cont.)

The MMA also directed the Government Accountability Office (GAO) to conduct a study comparing the relative costs of procedures performed in ASCs with the relative costs of procedures performed in hospital outpatient departments (HOPDs). Findings from this study include (GAO 2006):

- The relative costs of services hospitals furnish under the system CMS uses to reimburse hospitals for most outpatient services—the outpatient PPS—accurately reflect the relative costs of procedures performed in ASCs. For example, if a service costs twice as much as another service in an HOPD, the more costly service will also cost about twice as much as the cheaper service in an ASC.
- The cost of performing a procedure in an ASC is lower than the cost of providing the same procedure in an HOPD.
- Among ASCs, the share of total operating costs attributable to labor costs has a mean of 50 percent.

In this study, GAO analyzed costs from 290 ASCs. For each procedure covered under the ASC payment system, GAO estimated the cost for each time an ASC provided the procedure. GAO determined the median cost for each procedure. In addition, GAO obtained from CMS the median HOPD cost from each of the ambulatory payment classification (APC) groups in the outpatient PPS, which are the payment groups CMS uses to classify HOPD services on the basis of clinical and cost similarity.

GAO determined the ratio of the median cost of each ASC service to the median cost of the APC to which it would be classified. GAO found that the median of these ratios is 0.84, which indicates that ASC costs are, in general, lower than HOPD costs. We caution that this estimate of the ratio of ASC costs to HOPD costs is not precise. A precise estimate can be obtained only by comparing all the costs ASCs incur in furnishing their services to all the costs HOPDs incur in furnishing the same services.

Reflecting in part the results of GAO's study, the revised payment system that CMS began using on January 1, 2008, included a number of substantive changes:

- The services eligible for separate payment under the ASC payment system increased substantially in number and in scope.
- The relative payment amounts for most services are based on the relative payment amounts in the outpatient PPS. However, in some instances the payment amounts are limited by the payment amounts from the Medicare physician fee schedule.
- The share of a service's payment rate adjusted for geographic variation in labor costs increased from 34.45 percent to 50 percent.

Substantial increase in the number of services eligible for payment under the revised ASC payment system

CMS increased the number of services eligible for separate payment under the revised ASC payment system through two mechanisms. First, CMS revised the criteria a surgical procedure must meet to be eligible for payment under the ASC payment system, which added more than 800 procedure codes to the list of covered services. This revision reflects a previous Commission recommendation (MedPAC 2004). Second, CMS expanded the types of service for which an ASC can receive separate payment to include radiology services, brachytherapy sources, some drugs, and some implantable devices. Previously, these items had either been packaged into the payment for surgical procedures or paid under a different Medicare fee schedule.

In general, CMS has decided that any surgical procedure represented by a Current Procedural Terminology code in the range 10000 through 69999 can be eligible for payment under the ASC payment system. This list includes procedures predominantly performed in physician offices (office-based procedures), which had been excluded under the old

(continued next page)

Recent changes to the ASC payment system (cont.)

ASC payment system. However, in the interest of patient safety, CMS excludes surgical procedures that have one or more of the following characteristics:

- generally result in extensive blood loss,
- require major or prolonged invasion of body cavities,
- directly involve major blood vessels,
- are emergent or life-threatening in nature,
- commonly require systemic or thrombolytic therapy,
- are designated as requiring inpatient care,
- involve the patient generally requiring active medical monitoring and an overnight stay.

In addition to the surgical procedures, CMS used the outpatient PPS as a guide and chose to pay separately for these services:

- radiology services when they are integral to a covered surgical procedure,
- brachytherapy sources implanted during a surgical procedure covered under the ASC system,
- all drugs that are paid separately under the outpatient PPS when provided in association with a surgical procedure covered under the ASC system, and
- devices with pass-through status in the outpatient PPS that are implanted during a surgical procedure covered under the ASC system.

Relative payment amounts largely based on outpatient PPS

The method CMS uses to set payment rates for surgical procedures is based largely on the outpatient PPS. Each surgical procedure has a relative weight that indicates the relative costliness of furnishing the procedure. The relative weight for most surgical procedures is based on its relative weight from the outpatient PPS, with

two exceptions: office-based procedures and device-intensive procedures—procedures in which the cost of an implantable device is at least 50 percent of the outpatient PPS cost of the entire procedure. For office-based procedures, CMS bases the relative weight on the lesser of the outpatient PPS relative weight or the nonfacility practice expense relative value units from the Medicare physician fee schedule.

For a device-intensive procedure, CMS divides the procedure's payment rate from the outpatient PPS into two parts—the service portion and the device portion. The device portion is set equal to the device cost included in the outpatient PPS payment rate. The service portion is the nondevice amount of the remaining outpatient PPS payment rate. The service portion is adjusted by a ratio of the ASC conversion factor and the outpatient PPS conversion factor. The two portions are summed and a relative weight is determined by dividing that sum by the ASC conversion factor. CMS distinguishes between the service portion and the device portion because the agency believes that the cost of providing a service is lower in an ASC than in an HOPD, but the cost of obtaining a device is about the same for an ASC as it is for an HOPD.

CMS creates a payment rate for each ASC procedure as a product of its relative weight and a conversion factor. Each year, CMS sets the conversion factor so that total program payments under the revised payment system equal total program payments for 2007. For 2009, the conversion factor is \$41.39. In addition, relative weights in the outpatient PPS usually change each year by a small amount, and CMS adjusts them so that projected program spending does not change. However, the mix of services in ASCs differs from that in the outpatient PPS. Therefore, using the actual relative weights from the outpatient PPS can cause ASC spending to be above or below the 2007 level. To maintain spending at 2007 levels, CMS adjusts each relative weight by the same factor. The adjustment factor in 2009 is 0.975.

This method for setting payment rates is a significant change from the method CMS used before 2008. It

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Recent changes to the ASC payment system (cont.)

has resulted in very large changes in payment rates for some procedures. From 2007 to 2008, payment rates decreased by 84 percent for some procedures and increased by 606 percent for others. To allow ASCs time to adjust to these new payment rates, CMS is phasing in the new rates over four years, and the revised system will be fully phased in by 2011.

CMS uses a number of methods to set payments for the nonsurgical services that have separate payments under the revised ASC payment system:

- Payment rates for radiology services are equal to the lesser of the amount calculated according to the standard method for the revised payment system or the nonfacility practice expense amount from the physician fee schedule.
- Payment rates for brachytherapy sources are set equal to the payment rates from the outpatient PPS or to contractor prices if there are no outpatient PPS rates available.

- Payment rates for separately paid drugs are equal to the payment rates from the outpatient PPS.
- Payment rates for implantable devices that are separately paid (pass-through devices) are paid equal to contractor-priced rates.

CMS increased the proportion of each payment rate that is adjusted for geographic differences in labor costs

On the basis of results from the GAO study, CMS increased the proportion of each payment rate that is adjusted for geographic variation in labor costs from 34.45 percent to 50 percent. This adjustment applies to all surgical procedures and radiology services. But it excludes brachytherapy sources, separately paid drugs, and implantable devices because they are commodities whose costs are largely invariant to geography. ■

Are ASC payments adequate?

The Commission uses cost data to analyze the adequacy of Medicare payments in many areas such as hospitals and skilled nursing facilities, but we lack recent data on the cost of ASC services. In the absence of ASC cost data, we used three factors to assess the adequacy of payments: changes in industry revenue from the Medicare program, changes in beneficiaries' access to care—measured by changes in the supply of facilities and changes in the volume of services—and an assessment of ASCs' access to capital.

We use data from 2002 through 2007 to evaluate payment adequacy. Our results show strong growth in Medicare payments to ASCs, access to care, and ASCs' access to capital, suggesting that payment rates were at least adequate through 2007.

However, ASC payment rates have not had a positive update since 2003, and current law does not allow a positive update until 2010. In addition, Medicare made substantial changes in 2008 to the ASC payment system.

These changes affect how Medicare sets payment rates for ASC procedures and substantially expanded the number of procedures covered under the ASC payment system. The lack of a positive update since 2003 and changes to the payment system in 2008 have the potential to affect the future financial circumstances of ASCs. Also, the substantial changes in 2008 caused some uncertainty about whether our measures of payment adequacy indicate whether payments are adequate under the current system.

In this section, we present the results of our analysis of the adequacy of ASC payment rates and recent changes to the ASC payment system

Medicare spending on ASC services

In 2007, ASCs received about \$2.9 billion in payments from Medicare and beneficiary cost sharing (Table 2B-9, p. 116). Spending per beneficiary increased by an average of 8.4 percent per year from 2002 through 2007. The spending increase in 2007 slowed to 2.9 percent because of a provision in the DRA. For each procedure, the 2007 payment rate was set at the lesser of its 2006 ASC rate or

**TABLE
2B-9****Medicare payments and number of facilities have grown
for Medicare-certified ASCs, 2002-2007**

	2002	2003	2004	2005	2006	2007
Medicare payments (billions of dollars)	\$1.9	\$2.2	\$2.5	\$2.7	\$2.8	\$2.9
Number of centers	3,597	3,887	4,136	4,506	4,707	4,964
New centers	309	365	315	467	261	267
Exiting centers	83	75	66	97	60	10
Net percent growth in number of centers from previous year	6.7%	8.1%	6.4%	8.9%	4.5%	5.5%

Note: ASC (ambulatory surgical center). Medicare payments include program spending and beneficiary cost sharing for ASC facility services.

Source: MedPAC analysis of Provider of Services files from CMS, 2000-2007. Payment data are from CMS, Office of the Actuary.

the 2007 payment rate for the procedure in the outpatient PPS. We estimate that the DRA provision reduced the growth in Medicare spending for ASCs in 2007 from 5.1 percent per beneficiary to 2.9 percent. CMS projects Medicare spending to grow at a strong rate under the revised payment system the agency implemented in 2008, increasing by 20 percent to \$3.5 billion in 2008 and by an additional 11 percent to \$3.9 billion in 2009 (CMS 2008a). The projected strong growth in 2008 and 2009 is due in part to a substantial increase in the number of surgical procedures covered under the ASC payment system.

Beneficiaries' access to care

Data analysis strongly suggests that beneficiaries' access to ASC services has been increasing. The number of Medicare-certified facilities and volume of services provided to Medicare beneficiaries suggest growing access to ASCs. This growth may be beneficial to patients and providers because provision of care in ASCs instead of HOPDs can offer them convenience and efficiency. For patients, ASCs offer more convenient locations, shorter waiting times, and easier scheduling; for physicians, they offer more control over their work environment by developing customized surgical environments and hiring specialized staff. In addition, beneficiaries generally face lower coinsurance in ASCs than in HOPDs. Therefore, as long as this growth in ASCs does not represent some degree of overprovision of surgical services in ASCs, the Commission recognizes the benefits they offer.

Change in supply of ASCs The number of Medicare-certified ASCs has increased substantially over the last several years. In 2007, there were 4,964 ASCs. From 2002 through 2007, an average of 331 new Medicare-certified

facilities entered the market per year, while an average of 65 closed or merged with other facilities (Table 2B-9). The number of Medicare-certified ASCs grew from 2002 through 2007 at an annual rate of 6.7 percent, although the increase was slightly slower from 2006 to 2007, 5.5 percent. Our estimates indicate that the number of Medicare-certified ASCs increased by 3.3 percent to 5,130 facilities in the third quarter of 2008, which translates to an annual growth rate of 4.4 percent.

Despite this strong aggregate growth, ASCs tend to be concentrated in specific states. As of 2007, more than 39 percent of ASCs were concentrated in five states that accounted for 28 percent of beneficiaries—California, Florida, Maryland, Texas, and Georgia. In contrast, Arkansas and Rhode Island had fewer than 10 ASCs and Vermont had none.³⁹ Beneficiaries who do not have access to an ASC may receive ambulatory surgical services in HOPDs and, in some cases, in physician offices.

Rapid growth in the number of Medicare-certified ASCs may indicate that Medicare's payment rates have been at least adequate, despite the fact that there has not been a positive update to ASC payment rates since 2003. However, Medicare payments, according to recent industry surveys, account for about 20 percent of all ASC revenue (Deutsche Bank 2008a, MGMA 2006). In addition, other factors have likely influenced the rapid growth in the number of Medicare-certified ASCs:

- Changes in clinical practice and health care technology have expanded the provision of surgical procedures in ambulatory settings.
- Medicare began covering colonoscopy for colorectal cancer screening in 1998.

**TABLE
2B-10**

Most Medicare-certified ASCs are urban and for profit

ASC type	2002	2007
Urban	87%	88%
Rural	13	12
For profit	95	96
Nonprofit	5	4

Note: ASC (ambulatory surgical center).

Source: MedPAC analysis of Provider of Services file from CMS.

- ASCs may offer patients more convenient locations, the ability to schedule surgery more quickly, and shorter waiting times than HOPDs.
- For most procedures covered under the ASC payment system, beneficiaries' coinsurance is lower in ASCs than in HOPDs.⁴⁰
- Physicians may find it more convenient and efficient to perform procedures in ASCs because they often have customized surgical environments and specialized staffing.
- Physicians who invest in ASCs can increase their practice revenue by receiving ASC facility payments. The federal anti-self-referral law (also known as the Stark Law) does not apply to surgical services provided in ASCs, making it possible for physicians to own and provide care in these facilities.
- Because physicians can perform more procedures in ASCs than in HOPDs over the same period of time, they can earn more professional fees.

The lack of a positive update to ASC payment rates since 2003 has had no effect on whether ASCs locate in urban or rural areas and whether they are for profit or nonprofit. Most Medicare-certified ASCs are for profit and are located in urban areas (Table 2B-10).

Changes in the volume of services The volume of services per FFS beneficiary in Medicare-certified ASCs has grown rapidly in recent years. From 2002 to 2007, the number of services per FFS beneficiary increased by 59 percent (9.8 percent per year). This increase was largely driven by growth in the number of beneficiaries served, which increased by 7.5 percent per year from 2002 to 2007 (Table 2B-11). This growth occurred even though there were no increases in ASC payment rates from 2004 through 2006 and there were actual decreases from 2006 to 2007 in the rates for some services as CMS implemented the DRA policy that set ASC payment rates to the lesser of their 2006 levels or the amount that would be paid under the outpatient PPS.

The growth in service volume provided in ASCs may reflect, in part, migration of services from HOPDs to ASCs. To evaluate this hypothesis, we compared growth in volume of services in ASCs with the growth of ASC-covered services provided in HOPDs. We found that growth in service volume for surgeries has been much higher in ASCs. The number of surgical services per FFS beneficiary provided in HOPDs grew at an annual rate of 1.3 percent from 2002 to 2007, while these services increased by 9.8 percent per year in ASCs (Table 2B-11). However, the number of all services (not just surgical services) per beneficiary in HOPDs has grown at a high rate of 3.5 percent per year from 2002 through 2007.

While the more rapid growth of ambulatory surgical services in ASCs compared with HOPDs indicates some

**TABLE
2B-11**

Volume of surgical services grew faster in ASCs than in HOPDs, 2002-2007

Average annual percent change, 2002-2007

Measure	ASCs	HOPD surgical services	HOPD all services
Number of services per FFS beneficiary	9.8%	1.3%	3.5%
Number of beneficiaries served	7.5	-0.5	-0.1
Services per beneficiary served	2.5	2.2	4.1

Note: ASC (ambulatory surgical center), HOPD (hospital outpatient department), FFS (fee-for-service). To ensure comparability, we analyzed the volume of the same set of ambulatory surgical services in each setting by selecting only those services that are payable by Medicare when provided in an ASC.

Source: MedPAC analysis of 5 percent standard analytic claims files for ASCs.

migration of these services from HOPDs to ASCs, other factors can contribute to this difference. In addition to migrating to ASCs, HOPD services may be migrating to physician offices; also, physicians who own ASCs may have an incentive to perform more surgical services than they would if they could provide outpatient surgical services only in HOPDs.

It is quite possible that the more rapid growth of surgical procedures in ASCs relative to HOPDs helps hold down overall Medicare spending because, starting in 2008, payment rates are lower in ASCs than in HOPDs for the same services. (In 2007, ASC rates could be below or equal to HOPD rates; before 2007, ASC rates could be above, below, or equal to HOPD rates). However, two factors must be considered before making a definitive conclusion. First, most ASCs have some degree of physician ownership. As mentioned above, having an ownership stake may give physicians an incentive to perform more surgical services than they would if they could provide outpatient surgical services only in an HOPD. To the extent physicians act on this incentive, it actually could increase Medicare spending. Second, growth in ASCs expands the overall capacity for outpatient surgery, which may lead to a higher overall volume of surgery. Although there are differences between ASCs and specialty hospitals, these effects would be similar to the Commission's analysis of physician-owned specialty hospitals, which found that entrance of cardiac hospitals into a market is associated with a greater increase in service volume than would be expected (MedPAC 2006c).

ASCs' access to capital

Owners of ASCs require capital to establish new facilities and upgrade existing facilities. Earlier, we mentioned that the number of Medicare-certified ASCs has grown at a strong rate. This strong growth is the best indicator available that access to capital has been at least adequate for ASCs (Table 2B-9, p. 116).

Data on the financial performance of ASCs is further evidence of their access to capital. From 2007 to 2008, earnings per share of stock increased by more than 10 percent for the two publicly traded ASC chains (Deutsche Bank 2008b). Moreover, the average operating margin for ASCs located in Pennsylvania steadily increased each year from 16 percent in 2002 to 25 percent in 2007 (Pennsylvania Health Care Cost Containment Council 2008). The earnings produced by these ASCs are a source of capital they can use to establish new facilities or upgrade existing ones.⁴¹ We caution, however, that the

publicly traded ASC chains represent only 6 percent of all Medicare-certified ASCs and ASCs in Pennsylvania represent only 4 percent, so their earnings growth may not be indicative of the ASC industry.

We also note that the downturn in credit markets that started in the latter part of 2008 has likely decreased ASCs' access to capital—as it has for other businesses. However, because the dramatic changes in the credit markets are unrelated to changes in Medicare payments, changes in access to capital in 2008 may not be a good indicator of Medicare payment adequacy.

Effects of changes to the ASC payment system on ASC payment rates

Throughout our period of analysis—2002 through 2009—ASC payment rates for the procedures covered under the ASC payment system have, on average, been lower than their corresponding payment rates in the outpatient PPS, which is the system that reimburses most hospitals for Medicare services furnished in HOPDs. Lower payment rates for ASCs are appropriate because, according to prior Commission analysis, ASCs likely incur lower costs than HOPDs because HOPDs must meet additional regulatory requirements and treat patients who are more medically complex (MedPAC 2004, MedPAC 2003). Unlike ASCs, hospitals are subject to the Emergency Medical Treatment and Active Labor Act, which requires outpatient departments to stabilize and transfer patients who believe they are experiencing a medical emergency, regardless of their ability to pay. In addition, patients treated in HOPDs are, on average, more medically complex than patients treated in ASCs, and these more complex patients are likely more costly (MedPAC 2003, RAND 2006). A comparison of ASC costs and HOPD costs by the Government Accountability Office confirmed that ASC costs are, on average, lower than HOPD costs (GAO 2006). However, it is not clear how much lower ASC payment rates should be relative to HOPD rates because we lack adequate cost data from ASCs to make that determination.

Before 2008, the ASC payment system assigned procedures into one of nine payment categories on the basis of how much CMS estimated it would cost ASCs to furnish the procedure. All procedures in the same payment category had the same payment rate. The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA) required the Secretary to implement a revised ASC payment system. In 2008, CMS satisfied this requirement by converting the old nine-category

payment system to a system patterned after the outpatient PPS. That is, the ASC payment system now has the same payment categories as the outpatient PPS, and the relative weights for most surgical procedures are based on their relative weights in the outpatient PPS (see text box, pp. 112–115). A procedure's relative weight indicates the cost of providing the procedure relative to all other procedures. CMS creates a payment rate for each procedure as the product of its relative weight and a conversion factor. The revised payment system also increased by 32 percent the number of procedures covered by the ASC payment system. However, the payment rates for 41 percent of these new procedures are capped at the nonfacility PE amount from the physician fee schedule.

Using ASCs' service use volume for Medicare from 2007, we estimate that when CMS implemented the revised payment system in 2008, ASC payment rates on average were 63 percent of the payment rates in the outpatient PPS.⁴² As required by the MMA, CMS set the ASC rates at this level so that the revised payment system is budget neutral relative to the old system. That is, total Medicare payments to ASCs do not change as a result of the revised system.

Again using ASCs' service use volume for Medicare from 2007, we estimate that 2009 ASC payment rates as a percentage of outpatient PPS payment rates declined to 59 percent. This decline occurred for two reasons. First, the relative weights for most ASC procedures are based on their relative weights in the outpatient PPS. The relative weights in the outpatient PPS usually change each year by a small amount and are adjusted so that projected program spending does not change over time (excluding changes in input prices). However, the mix of services in ASCs is different from that in the outpatient PPS. Because of this different service mix, CMS makes a separate adjustment to the relative weights in the ASC system to maintain projected program spending at a constant level (budget neutrality). To maintain budget neutrality in 2009, CMS reduced the relative weight for each procedure by 2.5 percent.

The second reason for the decline in ASC rates relative to outpatient PPS rates from 2008 to 2009 is that there was no update to the payment rates for ASCs (by law), while the payment rates in the outpatient PPS received a positive update.

A salient issue for many ASCs is that payment rates for the highest volume procedures have declined under the revised payment system. The highest volume procedures

are a significant share of total ASC volume in Medicare. For example, 20 procedures account for 74 percent of Medicare service volume. The decline in ASC payment rates for the highest volume procedures is an especially strong concern for ASCs that focus most of their services on three specialties: ophthalmology, gastroenterology, and pain management services such as injections to treat back pain. Services in these categories are among the most frequently provided ASC procedures and ASCs providing these services often specialize in them.

In contrast to the high-volume procedures, 86 percent of all procedures covered in the ASC payment system in 2007 have higher rates under the revised system, which suggests that ASCs may be able to maintain their Medicare revenue by diversifying their procedure mix and offering more procedures that have increasing payment rates. Also, as noted earlier, the revised ASC payment system has increased ASCs' options for earning revenue by increasing the number of surgical procedures covered under the ASC payment system by 32 percent (from 2,571 in 2007 to 3,403 in 2008).

Early indications suggest that the revised payment system is not detrimental and may be beneficial to ASCs' long-term future:

- The number of ASCs continued to increase into 2008.
- A survey of ASCs conducted for a market analyst report indicates that they view the reimbursements under the revised payment system as slightly positive (Deutsche Bank 2008a).⁴³
- Market analysts indicate that the earnings per share for the two publicly traded ASC chains increased by more than 10 percent in 2008 (Deutsche Bank 2008b).

How should Medicare payments for ambulatory surgical centers change in 2010?

Our payment adequacy analysis indicates that the supply of Medicare-certified ASCs has increased, beneficiaries' use of ASCs has increased, and access to capital has been strong. However, our information for assessing payment adequacy is limited in two ways. First, unlike other facilities, ASCs do not submit cost or quality data to the Secretary. Those data are vital for a thorough evaluation of the adequacy of ASC payments. Second, our data on

ASCs' Medicare volume run through 2007, but the ASC payment system is undergoing a transition to the revised payment system beginning in 2008.

Update recommendation

The Commission's recommendation is that for 2010 the Congress should increase the conversion factor in the ASC payment system by a moderate rate of 0.6 percent. The Commission arrived at this update to balance several goals:

- keep providers under financial pressure to hold costs down,
- hold down the burden on workers and firms who pay the taxes to finance Medicare,
- maintain the sustainability of the Medicare program by holding down spending in the ASC sector,
- maintain beneficiaries' access to ASC services and providers' willingness and ability to furnish those services, and
- maintain beneficiaries' coinsurance for services provided in ASCs below the coinsurance in HOPDs.

We are concerned about the recent history of the ASC payment system. ASCs have not had a positive update to their Medicare payment rates since 2003. Moreover, they are in the midst of a long-term transition to new payment rates that CMS implemented in 2008. These new payment rates are lower for the most frequently provided procedures but higher for a large majority of all procedures covered under the ASC payment system. The extent of the changes to the payment rates and the fact that they were recently implemented bring some uncertainty about their adequacy. However, early indications suggest that the restructured payment system is not detrimental and may be beneficial to ASCs' long-term future:

- The number of ASCs has continued to increase into 2008.
- A survey of ASCs indicates that they view the reimbursements under the revised payment system as slightly positive (Deutsche Bank 2008a).
- Market analysts indicate that the earnings per share for the two publicly traded ASC chains increased by more than 10 percent in 2008.
- A large increase in the number of covered procedures creates opportunities to expand Medicare business.

The Commission also recommends that ASCs be required to submit cost and quality data to the Secretary as soon as feasible. The Commission recommended the submission of cost data in a previous report (MedPAC 2004). Also, CMS has considered requiring that ASCs submit quality data. However, CMS has decided to postpone collection of quality data to an undetermined date to allow ASCs time to adjust to the revised payment system and to allow time for CMS to identify the most appropriate quality measures (CMS 2008b).

A possible issue regarding the submission of cost data is that ASCs typically are relatively small facilities and may have limited resources for supplying cost data. However, ASCs are businesses, and businesses typically keep a record of their costs for tax filing purposes. Moreover, other small providers submit cost data to CMS, including home health agencies and hospices. Therefore, we do not believe that resource costs involved in the submission of cost data by ASCs is an insurmountable obstacle. Nevertheless, the scale of ASCs' cost reporting should be more limited than that for larger facilities such as hospitals. At the same time, the cost data should include enough information so that analysts are able to fully assess the adequacy of ASC payment rates and to develop a market basket index for ASCs that could be used to determine appropriate updates to the ASC payment rates. Possible mechanisms for collecting cost data include annual cost reports that are more streamlined than hospital cost reports and annual surveys of a random sample of ASCs.

Finally, ASCs offer advantages over HOPDs that we must keep in mind. Medicare costs per service are lower in ASCs, and beneficiaries generally have lower coinsurance in ASCs than in HOPDs for each procedure covered under the ASC payment system. Also, ASCs offer efficiencies to patients and physicians that are not available in HOPDs. For patients, ASCs offer more convenient locations, shorter waiting times, and easier scheduling; for physicians, they offer customized surgical environments and specialized staffing. It is vital that ASCs be paid adequately to ensure that beneficiaries continue to have access to this option.

RECOMMENDATION 2B-4

The Congress should increase payments for ambulatory surgical center (ASC) services in calendar year 2010 by 0.6 percent. In addition, the Congress should require ASCs to submit to the Secretary cost data and quality data that will allow for an effective evaluation of the adequacy of ASC payment rates.

A number of factors indicate that payments to ASCs have been at least adequate. The Commission has found robust growth in the number of Medicare-certified ASCs, number of operating rooms, volume of services to Medicare beneficiaries, and number of beneficiaries receiving care in ASCs. In addition, the growth in the number of ASCs indicates that they have had at least adequate access to capital. We caution, however, that we lack cost and quality data, which are necessary to fully assess payment adequacy. Moreover, the growth in these measures of payment adequacy is likely also due to other factors such as technological advances that have expanded the provision of surgical procedures in ambulatory settings and the convenience that ASCs offer to physicians and patients over HOPDs.

On the basis of the results we have that reflect the adequacy of payments and the information we have about the effects of the revised payment system, we recommend an update for 2010 equal to 0.6 percent. We believe an update of 0.6 percent will maintain beneficiaries' access to ASC services and that providers will be willing and able to furnish those services. We also believe that it is vital for ASCs to submit cost and quality data. Having ASCs submit cost data would benefit the Medicare program because it would allow analysts to get a more complete assessment of the extent to which ASC payment rates should be adjusted to cover the costs of an efficient provider. Having ASCs submit quality data also would benefit the Medicare program because that would allow payments to be made on the basis of the quality of care. For these reasons, we believe ASCs should be required to submit cost and quality data to the Secretary.

Spending

- CMS has stated that it has discretion over which update factor to use for ASC payment rates. The agency has decided to increase ASC payment rates in 2010 by the consumer price index for all urban consumers (CPI-U) (CMS 2007). The most recently published measure of the CPI-U is 1.9 percent, but we recommend that the payment rates be increased by 0.6 percent (Global Insight 2008). Therefore, our estimates indicate that the update recommendation for 2010 would decrease federal program spending by \$50 to \$250 million in the first year and by less than \$1 billion over five years, relative to current law. The Commission also has concerns about how well the CPI-U measures input price changes for ASCs and may examine alternatives to the CPI-U in the future.

Beneficiary and provider

- Because of the growth in the number of Medicare-certified ASCs and the number of beneficiaries treated in ASCs, we do not anticipate that this recommendation will diminish beneficiaries' access to ASC services or providers' willingness or ability to provide those services.
- ASCs will incur some administrative costs to submit cost and quality data.
- Beneficiaries will continue to have lower cost sharing for a given service in ASCs than in HOPDs. ■

Endnotes

- 1 Technical refinements to the fee schedule resulted in an overall update of 0.2 percent in 2006.
- 2 MIPPA phases down this electronic prescribing bonus to 0.5 percent in 2013. Starting in 2012, MIPPA requires payment reductions to physicians who do not use this technology. Some hardship exceptions will be allowed.
- 3 MMA established an additional 5 percent bonus for physician scarcity areas, but this provision expired in 2008.
- 4 We do not survey Medicare beneficiaries younger than age 65 because of difficulty obtaining an adequate sample size.
- 5 We are unable to compare access to specialists in previous years because the wording of the survey question changed in 2006.
- 6 ED visits were classified based on the definition used by the HSC (Cunningham and May 2003).
- 7 Because the basic sampling unit of the NHAMCS is the patient visit, survey data cannot be analyzed at the hospital level. In addition, this data source does not provide information about the capacity of EDs. Thus, we were unable to determine whether waiting times for whites and nonwhites varied within the same hospital and whether demand for services varied among EDs.
- 8 For this analysis, we excluded certain types of specialties that do not typically serve most Medicare beneficiaries, such as all pediatric specialties, obstetrics, and medical genetics. Physicians with specialties of anesthesiology, radiology, and pathology are excluded by the NAMCS sampling frame, which focuses on office-based physicians.
- 9 More information on the results of the Commission's 2006 survey of physicians is available in Chapter 2B of our March 2007 report.
- 10 We conservatively categorized physicians who saw fewer than 15 patients under the assumption that they did not regularly serve FFS beneficiaries and provided services to beneficiaries for only a short time during the year or only on an emergency or temporary basis while covering for colleagues.
- 11 Performance was measured for 2007 through the first few months of 2008.
- 12 The method used for the comparison involves calculating a price index for each type of private plan (HMO, point of service, preferred provider organization (PPO), and indemnity). Each price index is a weighted average of service-level price comparisons between Medicare and private payment rates, using Medicare's volume in each service as the weight. The plan-specific estimates are then weighted based on the Kaiser Family Foundation and Health Research and Educational Trust yearly estimates of private enrollment in each type of plan for 2007 (Kaiser Family Foundation HRET 2008). To address enrollment in high-deductible health plans (HDHPs), we classified them as PPOs for enrollment distribution and payment rate purposes, because health plan industry sources indicate that 90 percent of HDHP enrollees are offered these options off a PPO "platform."
- 13 Our analysis relies on data from two national insurers, but—like all insurers—they face different market conditions in different areas. In a particular area, for example, there may be one dominant insurer that is better able to negotiate lower prices with providers, while other insurers have to pay higher rates. Although the data we use for our analysis from the two national insurers have a wide and diverse geographic distribution, we may not be able to fully capture the variation in private payment rates in different areas that results from local competitive circumstances.
- 14 The service categories we use are those in CMS's Berenson-Eggers Type of Service (BETOS) system. Changes in volume for some of these categories are difficult to interpret. For instance, the category "cardiovascular-other" consists of a variety of cardiovascular procedures not otherwise assigned. From 2006 to 2007, the volume of some of these services went up while the volume of others went down. Overall, however, we could discern no consistent pattern for the category. The Commission has a contract with the Urban Institute to assist us with advice to CMS on improving BETOS.
- 15 This estimate includes interest income. Under high cost assumptions, the Hospital Insurance trust fund could be exhausted as early as 2015. Under low cost assumptions, it would remain solvent until 2040.
- 16 Compensation per hour for a service is calculated in two steps. First, the work RVU per hour for the service is calculated as the service's work RVU divided by CMS's estimate of the time (in hours) a physician spends furnishing the service. Second, to get compensation per hour, the work RVU per hour is multiplied by the fee schedule's conversion factor. As an example, consider two specific services, each within the service categories mentioned in the text: one in the office visits service category and one in the CT category. Compensation per hour for the most frequently billed service in the office visits service category (HCPCS 99213) is $(0.92 \text{ work RVU} / 0.38 \text{ hour per service}) \times \$36.0666 \text{ conversion}$

- factor = \$87 per hour. Compensation per hour for the most frequently billed service in the CT category (HCPCS 72193) is $(1.16 \text{ work RVU}/0.30 \text{ hour per service}) \times \36.0666 conversion factor = \$139 per hour. Thus, compensation per hour for the CT service is 160 percent of compensation per hour for the office visit, a percentage somewhat higher than but otherwise similar to the average for the two service categories of 147 percent that is cited in the text.
- 17 In our June 2008 report, we used 2006 Medicare claims data and compared physician specialties according to the percent of their allowed charges that were for primary care services. Geriatric medicine had the highest percentage: 65 percent. Other specialties with relatively high percentages were family medicine (62.5 percent), internal medicine (44.4 percent), and pediatric medicine (36.5 percent). The percentages for nurse practitioners and physician assistants were 65.4 percent and 34.8 percent, respectively.
 - 18 To calculate this and the other averages discussed here, the changes in relative values were weighted by the units of service for each billing code as reported in CMS's utilization file released with the fee schedule final rule for 2009.
 - 19 CMS's practice expense method includes a budget-neutrality adjustment, so the method is budget neutral within practice expense. In other words, it does not require a budget-neutrality adjustment—similar to the one for physician work—applied to the conversion factor.
 - 20 To date, the review process has resulted in recommendations for changes in relative values for about 140 services. Most of the recommendations have been for reductions in relative values for work, practice expense, or both. Because changes in relative values are budget neutral, these efforts have resulted in some redistribution of payments among services. Looking ahead, we can assess further progress toward lower relative values for overvalued services and higher relative values for primary care (and other services).
 - 21 More adequate valuation of primary care in Medicare's fee schedule could also send a signal to private payers. Those payers often use the fee schedule as a basis for their payment rates.
 - 22 As an example, consider a fee schedule adjustment for primary care that equals 10 percent of a practitioner's allowed charges for primary care services. Assume also that eligible practitioners are those whose allowed charges for primary care services are 60 percent or more of their total allowed charges. Under such a policy, we estimate that the reduction for budget neutrality would be about -1.1 percent.
 - 23 In Chapter 1 of the Commission's June 2008 report, we described how rapid volume growth of procedures and specialty care may result from mispricing in the physician fee schedule (MedPAC 2008d).
 - 24 The number of PET scans performed in all settings (hospital and nonhospital) increased by 21 percent from 2006 to 2007. We calculated changes in the number of PET scans instead of changes in the volume of PET scans because volume is based on RVUs and CMS has not yet assigned RVUs to the technical component of PET services (technical component payments for PET are determined by the carriers). Because of HCPCS coding changes and CMS coverage changes, it is difficult to calculate the growth of PET before 2006.
 - 25 The time estimate for a technician to perform a study includes not only the time it takes to image the patient but also pre- and post-service activities, such as greeting the patient, obtaining patient consent, preparing the room and equipment, positioning the patient on the machine, cleaning the room after the study, and processing the films. Presumably, CMS includes these pre- and post-service activities in the time estimate for the equipment because the imaging room is not available for use by other patients during that time.
 - 26 CMS has accepted nearly all the recommendations made by the RUC's practice expense committee, although it is not required to do so. For more information on this process, see MedPAC 2006b.
 - 27 CMS currently assumes that a CT study uses a 16-channel machine (CMS 2005c).
 - 28 Tesla refers to the strength of the MRI machine's magnetic field.
 - 29 The assumption that physician fee schedule providers are open 50 hours per week is primarily based on data from the AMA and the Medical Group Management Association (CMS 1997).
 - 30 This concept—known as learning by doing—has been described by the Commission in the context of physician work (MedPAC 2006a). However, the same idea could apply to work performed by nonphysician clinical staff, such as technicians who perform imaging services.
 - 31 The RUC has since referred three of the CT codes to the CPT committee for their review (CMS 2008a).
 - 32 The NORC survey's sample included 133 physician offices and freestanding imaging centers in Boston, MA; Miami, FL; Greenville, SC; Minneapolis, MN; Phoenix, AZ; and Orange County, CA. The survey achieved a response rate of 72 percent (MedPAC 2006b).

- 33 The IMV survey found that nonhospital CT providers performed 4,165 studies per scanner per year, on average (IMV Medical Information Division 2008). The survey also found that nonhospital CT providers performed 1.6 scans per machine per hour, on average. We divided 4,165 by 1.6 to determine that nonhospital providers operated each of their CT machines 2,603 hours per year, on average, or about 50 hours per week.
- 34 IMV surveyed almost 3,000 nonhospital providers and received responses from 803 (IMV Medical Information Division 2008). Most of the nonhospital sites were freestanding imaging centers. It is possible that cardiology and radiation oncology offices were underrepresented. IMV does not indicate whether the survey data are nationally representative.
- 35 NORC did not model the impact of increasing the equipment use factor for PET machines because CMS has not yet assigned PE RVUs to the TC of PET studies. Because these studies do not yet have RVUs, their TC payment rates are determined by Medicare's contractors.
- 36 In addition, the baseline in the NORC model uses the PE RVUs that fully reflect the changes CMS made to the PE method for 2007 (CMS is phasing in these changes between 2007 and 2010).
- 37 For example, we estimate that the outpatient cap policy reduces PE RVUs by 26 percent for MRI services, by 11 percent for CT of the head, and by 13 percent for CT of other parts of the body. These estimates are based on comparing 2008 hospital outpatient rates with physician fee schedule RVUs for the technical component of imaging services. We used the PE RVUs that fully reflect the changes CMS made to the practice expense method for 2007 (CMS is phasing in these changes between 2007 and 2010). We used volume data from 2006.
- 38 Other sources of ASC payments include commercial insurance (64 percent), workers' compensation (7 percent), Medicaid (2 percent), self-payment (5 percent), and other federal programs (1 percent).
- 39 Rhode Island and Vermont have certificate-of-need (CON) laws that apply to ASCs. These laws may explain the low number of ASCs in those states. However, despite having a small number of Medicare-certified ASCs, Arkansas does not have a CON law for them.
- 40 An exception is ASC services where the ASC coinsurance amount exceeds the hospital inpatient deductible of \$1,068. Coinsurance for a service in the outpatient PPS cannot exceed the inpatient deductible, so in some cases the ASC coinsurance does exceed the outpatient PPS coinsurance. This is true for 37 procedures in 2009.
- 41 The operating margins for ASCs have important differences from the margins from other sectors such as hospitals. In particular, the margins for most ASCs do not reflect income taxes or the income going to physician owners.
- 42 This value is a weighted average of the ASC rates relative to the outpatient PPS rates, where the weights are equal to the 2007 service volume of the ASC procedures.
- 43 The survey consisted of 206 ASCs. Seventy-two percent were multispecialty and 28 percent were single specialty.

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SECTION
2C

Outpatient dialysis services

R E C O M M E N D A T I O N

The Congress should maintain current law and update the composite rate in calendar year 2010 by 1 percent.

COMMISSIONER VOTES: YES 15 • NO 1 • NOT VOTING 0 • ABSENT 1

Outpatient dialysis services

Section summary

Each year, the Commission makes a payment update recommendation for outpatient dialysis services for the coming year. The Congress has charged the Commission to judge whether payments for the current year (2009) are adequate to cover the costs efficient dialysis providers incur and how much Medicare’s payments should change in the coming year (2010).

Most of our indicators of payment adequacy are positive. The growth in the number of dialysis facilities and treatment stations has kept pace with the growth in the number of dialysis patients, suggesting continued access to care for most dialysis beneficiaries. The growth in the number of dialysis treatments—one indicator of the volume of services—has kept pace with patient growth between 2006 and 2007. The total volume of most dialysis drugs administered grew between 2004 and 2007 but more slowly than in the past because of statutory and regulatory changes that lowered the payment rate for most of them.

Some measures of quality of care are improving. Use of the recommended type of vascular access—the site on the patient’s body

In this section

- Are Medicare payments adequate in 2009?
- How should Medicare’s payments change in 2010?
- Modernizing the dialysis payment method: Issues to consider

where blood is removed and returned during hemodialysis—has improved since 2000. More patients receive adequate dialysis and have their anemia under control. However, improvements in quality are still needed. For example, the proportion of dialysis patients registered for the kidney transplant waiting list does not meet the goal set forth by the Centers for Disease Control and Prevention Healthy People 2010.

Recent evidence about trends in the increase in the number of dialysis facilities suggests that providers have sufficient access to capital. Both the large dialysis organizations and smaller chains have obtained private capital to fund acquisitions.

The Medicare margin for composite rate services and dialysis drugs for freestanding dialysis facilities was 4.8 percent in 2007. The two largest dialysis chains realized a higher Medicare margin than other freestanding providers (6.9 percent vs. 0.2 percent). We project the overall Medicare margin for freestanding dialysis facilities will be 1.2 percent in 2009. This estimate reflects the update to the composite rate effective January 1, 2009, and the update to the add-on payment in 2008.

In summary, most of our payment adequacy indicators are positive—sufficient provider capacity, volume growth keeping pace with dialysis enrollment growth, some quality improvements, and sufficient provider access to capital. This evidence suggests that a moderate update of the composite rate is in order and that dialysis providers can achieve an efficiency gain similar to the economy at large, which is 1.3 percent. Therefore, the Commission recommends that the Congress maintain current law and update the composite rate by 1 percent for calendar year 2010. ■

Recommendation 2C

COMMISSIONER VOTES:

YES 15 • NO 1 • NOT VOTING 0 • ABSENT 1

The Congress should maintain current law and update the composite rate in calendar year 2010 by 1 percent.

Background

End-stage renal disease (ESRD) is a chronic illness characterized by permanent kidney failure. ESRD patients include those who are treated with dialysis—a process that removes wastes from the body—and those who have undergone kidney transplantation and have a functioning kidney transplant. Because of the limited number of kidneys available for transplantation, 70 percent of all ESRD patients undergo dialysis. Patients receive additional items and services related to their dialysis treatments, including dialysis drugs to treat conditions such as anemia and low blood calcium resulting from the loss of kidney function. The different types of dialysis available to patients are summarized (see text box, pp. 134–135).

The 1972 amendments to the Social Security Act extended Medicare benefits to people with ESRD who are eligible for Social Security benefits, even those under age 65 years. To qualify for the ESRD program, individuals must be fully or currently insured under the Social Security or Railroad Retirement program, entitled to benefits under the Social Security or Railroad Retirement program, or the spouse or dependent child of an eligible beneficiary.¹ ESRD patients entitled to Medicare due to kidney disease alone have the same benefits as other Medicare beneficiaries.

For patients entitled to benefits due to ESRD alone, Medicare coverage does not begin until the fourth month after the start of dialysis. Exceptions to this statutory provision are patients who have undergone a kidney transplant or who are trained to perform dialysis at home. About half of new ESRD patients are under age 65 and thus are entitled to Medicare because they have chronic renal failure. We estimate that there were about 113,000 new dialysis patients in 2007.²

If an employer group health plan (EGHP) covers a patient at the time of ESRD diagnosis, the EGHP is the primary payer for the first 33 months of care. Medicare is the secondary payer during this period. EGHPs include health plans that patients were enrolled in through their own employment or through a spouse's or parent's employment before becoming eligible for Medicare due to ESRD.

In 2007, the more than 330,000 dialysis beneficiaries covered by the Medicare program received care at about 4,900 dialysis facilities.³ About one-quarter of newly diagnosed ESRD patients were entitled to Medicaid benefits and about one-quarter were covered by an EGHP

(USRDS 2008). For both freestanding and hospital-based facilities, Medicare spending for dialysis and dialysis drugs totaled about \$8.6 billion in 2007, an increase of 2 percent compared with 2006. Medicare expenditures for composite rate services and dialysis drugs averaged about \$26,000 per patient in 2007.

Since 1983, Medicare pays dialysis facilities a predetermined payment for each dialysis treatment they furnish. Under the prospective payment—the composite rate—Medicare covers the cost of services that are associated with a single dialysis treatment, including nursing, dietary counseling and other clinical services, dialysis equipment and supplies, social services, and certain laboratory tests and drugs. In addition, Medicare pays separately for certain drugs and laboratory tests that have become a routine part of care since 1983. In 2007, payment for composite rate services averaged about \$155 per treatment while the payment for drugs averaged about \$75 per treatment. The Commission's Payment Basics provides more information about Medicare's method for paying for outpatient dialysis services (available at http://www.medpac.gov/documents/MedPAC_Payment_Basics_08_dialysis.pdf).

Providers of outpatient dialysis services

During the past five years, an increasing proportion of dialysis providers are freestanding, bigger (as measured by the number of hemodialysis stations), owned by publicly traded companies, operated by a chain, and for profit (Table 2C-2, p. 136, and Figure 2C-1, p. 137). Recently, the dialysis sector has evolved into an oligopoly, in which a small number of firms supply the major portion of an industry's output. In 2005 and 2006, the four largest dialysis chains merged into two chains. These two for-profit chains (Fresenius and DaVita) together account for about 60 percent of all facilities and about 70 percent of freestanding facilities (Figure 2C-1). In 2008, consolidation continued, with the merger of two smaller chains (Renal Advantage Inc. and National Renal Alliance) that served about 10,500 patients in 136 dialysis centers in 18 states (Ward 2008). These trends in the profit status, size, and consolidation of dialysis providers suggest that the dialysis industry is an attractive business to for-profit providers and that potential exists for efficiencies and economies of scale in providing dialysis care.

Since 2003, freestanding facilities have increased by 4 percent annually and currently account for 88 percent of all facilities. For-profit facilities have increased at a similar rate during this period and account for 81 percent

Dialysis treatment choices

A healthy human kidney continuously removes waste products and excess water from the blood. Chronic kidney disease is a slow, progressive loss of kidney function caused by inherited disorders; medical conditions, such as diabetes and hypertension; or the long-term use of certain drugs. When both kidneys fail, harmful wastes build up in the bloodstream along with excess fluid. A person's life can be sustained only through kidney transplantation or dialysis. Because of the shortage of donor kidneys, most patients rely on dialysis.

Dialysis is a treatment to replace the filtering function of the kidneys when they reach end-stage renal disease. The two types of dialysis—peritoneal dialysis and hemodialysis—remove wastes from a patient's bloodstream differently. Peritoneal dialysis uses the lining of the patient's abdomen as a filter to clear wastes and extra fluid and is usually performed in the patient's home. Hemodialysis uses an artificial membrane called a dialyzer to clean the patient's blood. Although hemodialysis is usually provided in dialysis facilities, it can also be done in the patient's home. As summarized in Table 2C-1, each dialysis type has advantages and disadvantages—no one type of dialysis is best for everyone. Patients choose one type of dialysis over another for many reasons, including quality of life, patient satisfaction, physician expertise, and patient education. Some patients switch from one dialysis type to another when their needs or condition changes.

Peritoneal dialysis

During peritoneal dialysis, a cleansing liquid, called dialysis solution, is drained from a bag into the patient's abdomen. Fluids and wastes flow through the lining of the cavity and remain "trapped" in the dialysis solution. The solution is then drained from the abdomen, removing the extra fluids and wastes from the body. Peritoneal dialysis is usually performed in the patient's home. To perform peritoneal dialysis, a physician places a catheter in the patient's abdomen to allow the dialysis fluid to enter and drain. On average, newly diagnosed patients choosing peritoneal dialysis tend to be younger than those selecting hemodialysis (USRDS 2008).

The two types of peritoneal dialysis are:

- Continuous ambulatory peritoneal dialysis, which does not use a machine and can be done at home or work. Most people change the dialysis solution at least four times a day and sleep with solution in their abdomen at night.
- Continuous cycler-assisted peritoneal dialysis, which uses a machine called a cycler to fill and empty the abdomen three to five times while the patient sleeps.

The most common problem with peritoneal dialysis is peritonitis, a serious abdominal infection. This infection can occur if the opening where the catheter enters the patient's body becomes infected or if contamination occurs as the catheter is connected or disconnected.

Hemodialysis

During hemodialysis, a machine removes wastes from the bloodstream. Hemodialysis is most often given in a dialysis facility (in-center) three times per week for three to four hours per treatment. This treatment is often referred to as conventional hemodialysis. To perform hemodialysis, a physician creates a vascular access to get the blood from the body to the dialyzer and back to the body. As we discuss later (p. 143), there are three vascular access types: arteriovenous (AV) fistula, AV graft, and central venous catheter.

Because of studies showing improved outcomes and quality of life, interest in more frequent hemodialysis regimens has grown substantially during the past decade. The two types of frequent hemodialysis are short daily hemodialysis, which is performed five to seven times per week for two to three hours per treatment; and nocturnal dialysis, which is performed three to six times per week while the patient sleeps. Short daily and nocturnal hemodialysis are typically performed in a patient's home. However, some dialysis providers are beginning to offer nocturnal hemodialysis in their facility.

(continued next page)

Dialysis treatment choices (cont.)

Muscle cramps and a sudden drop in blood pressure are two common side effects of conventional hemodialysis. Vascular access problems—including infection,

blockage, and poor blood flow, are the most frequent reason that hemodialysis patients are hospitalized. ■

**TABLE
2C-1**

A comparison of the different dialysis types

Dialysis type and setting	Advantages	Disadvantages
Peritoneal dialysis performed at home	<ul style="list-style-type: none"> • Patient's diet and fluids are much closer to normal than with conventional hemodialysis. • Patients have the freedom to perform dialysis at home or at work. It is easier for someone to work, attend school, or travel. • Patients have a sense of independence and control over their schedule and treatment. 	<ul style="list-style-type: none"> • Because the dialysis solution is composed of a sugar, there might be some weight gain and problems with glucose control. • This dialysis type is not an option if the patient has had previous abdominal surgery. • This dialysis type requires space in the patient's home for storing the machine and supplies.
Conventional hemodialysis provided in a dialysis facility three times per week	<ul style="list-style-type: none"> • Medical personnel are with the patient during dialysis. • A patient can interact with other patients. 	<ul style="list-style-type: none"> • Dialysis treatments are scheduled by the facility and are relatively fixed. • Patients must travel to the facility for treatment three times per week. • Compared to other dialysis types: <ul style="list-style-type: none"> • This treatment has the strictest diet and fluid limits. • Patients receive more dialysis drugs.
More frequent hemodialysis: short daily hemodialysis and nocturnal hemodialysis, which is often performed in a patient's home	<ul style="list-style-type: none"> • Patient's diet and fluids are much closer to normal than with conventional hemodialysis. • Patients have the freedom to perform dialysis at home. • Patients have a sense of independence and control over their treatment. 	<ul style="list-style-type: none"> • Patients must have a partner to assist during the dialysis treatment. • This dialysis type requires space in the patient's home for storing the machine and supplies.

Source: Summarized from information obtained from National Institute of Diabetes and Digestive and Kidney Diseases 2008a and DaVita 2008.

of all facilities (Table 2C-2, p. 136). The number of hospital-based facilities decreased from 660 to 589 during this time. Most freestanding facilities (91 percent) are for profit; by contrast, most hospital-based facilities (94 percent) are nonprofit (data not shown). In terms of size, freestanding facilities are, on average, larger than hospital-

based facilities. In 2008, freestanding facilities had 18 hemodialysis stations, on average, while hospital-based facilities had an average of 14 stations.

Most freestanding dialysis facilities (87 percent) are affiliated with a chain, whereas most hospital-based

**TABLE
2C-2**

The total number of dialysis facilities is growing; for-profit and freestanding dialysis providers are a larger share over time

	2008	Average annual percent change 2003-2008
Total number of dialysis facilities	4,957	3.2%
Number of hemodialysis stations		
Total	86,744	3.7
Mean	17.5	0.6
Percent of total facilities		
Nonchain	21%	-3.5
Affiliated with any chain	79	5.5
Affiliated with largest 2 chains	59	4.1
Rural	25	3.0
Urban	75	3.2
Freestanding	88	4.1
Hospital based	12	-2.3
For profit	81	4.4
Nonprofit	19	-1.2

Note: Nonprofit includes those designated as either nonprofit or government.

Source: Compiled by MedPAC from the 2003 and 2008 Dialysis Compare database from CMS.

facilities (79 percent) are not operated by a chain. The two largest chains together account for about 60 percent of all facilities; the third largest chain (Dialysis Clinic Inc.) operates 4 percent. Facilities not operated by these three chains are:

- 60 percent for-profit and 40 percent nonprofit facilities
- 68 percent freestanding and 32 percent hospital based
- 43 percent chain affiliated and 57 percent not affiliated with a chain

About one-quarter of dialysis facilities are located in a rural area. Rural and urban facilities have grown at similar rates during the past five years. The two largest dialysis chains, which together operate in 48 states, account for about 60 percent of all facilities in rural areas.

Recent regulatory and legislative changes to the outpatient dialysis payment method

During the past decade, the Commission has repeatedly called for the Congress to modernize the dialysis payment method in order to improve efficiency and quality. Specifically, we have recommended broadening the dialysis payment bundle to include composite rate services, dialysis drugs, and other services needed to treat ESRD and linking payment to the quality of care providers furnish. The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA) began to refine the payment method by reducing the profitability of separately billable drugs but kept the two-part structure in place. The Medicare Improvements for Patients and Providers Act of 2008 (MIPPA) mandates substantial changes to the outpatient dialysis payment method. The new law refines the current payment method by equalizing payment rates between hospital-based and freestanding facilities and updates the base composite rate for 2009 and 2010. It also modernizes the payment method by expanding the payment bundle to include drugs, laboratory services, and other commonly furnished items that providers currently bill separately and by linking payment to quality. Table 2C-3 (p. 138) summarizes recent statutory and regulatory changes to the outpatient dialysis payment method.

Refinements to the outpatient dialysis method in 2005

The dialysis payment method remained relatively unchanged until the MMA, which increased the payment rate for dialysis treatments and decreased the payment rate for dialysis drugs that Medicare pays separately. The MMA mandated paying providers an add-on payment to the composite rate in 2005. The law funded this add-on payment by shifting some of the payments previously associated with separately billable dialysis drugs to the composite rate (via the add-on payment) and mandating that these changes occur in a budget-neutral manner.

The MMA also lowered the payment rate for most separately billable dialysis drugs to a rate closer to the prices providers paid. Beginning in 2005, CMS paid dialysis providers their acquisition cost—based on a survey of prices providers paid for the top dialysis drugs—for most (but not all) dialysis drugs.⁴ In 2006, CMS revised this policy by paying average sales price (ASP) plus 6 percent for all dialysis drugs. These changes have resulted in Medicare's drug payment no longer being as profitable for most providers as it was before

2005, when the program paid either average wholesale price, reasonable cost, or a set (statutory) rate. A recent study by the Office of Inspector General (OIG) concluded that dialysis drugs remained profitable for most dialysis facilities in 2006 (OIG 2007).

However, the MMA did not change the two-part structure of the outpatient dialysis payment system. Providers still receive the composite rate for each dialysis treatment provided in dialysis facilities (in-center) or in patients' homes and separate payment for certain dialysis drugs and laboratory tests that were not available when Medicare implemented the composite rate.

Modernizing the outpatient dialysis payment method will begin in 2011

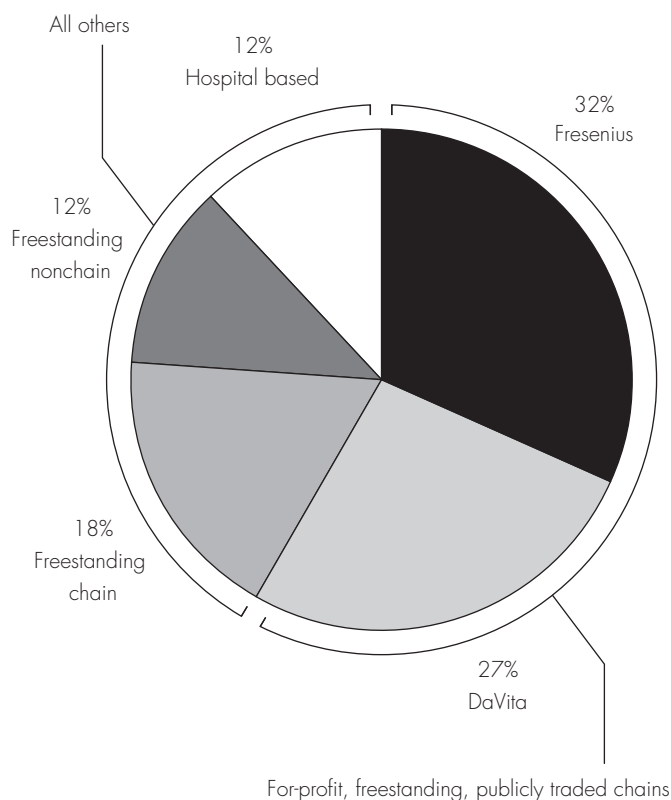
MIPPA modernizes the dialysis payment method by broadening the payment bundle and implementing a pay-for-performance program, improvements the Commission has long recommended (MedPAC 2004, MedPAC 2001). Beginning in 2011, the Secretary must implement a bundled payment system that includes:

- services included in the composite rate as of 2010,
- injectable biologicals used to treat anemia—erythropoiesis-stimulating agents—that are paid for separately under Part B and any oral form of such agents,
- other medications that are furnished to dialysis beneficiaries and paid for separately under Part B and any oral equivalent to such medications, and
- laboratory tests and other items and services that are furnished to beneficiaries for the treatment of ESRD.

The new payment bundle will not be implemented in a budget-neutral manner. Rather, MIPPA instructs the Secretary to ensure that the estimated total amount of payments in 2011 equal 98 percent of the estimated total amount of payments had the broader bundle not been implemented. Estimated total payments in 2011 will be based on the lowest per patient utilization of ESRD services between 2007 and 2009. MIPPA mandates that the new payment system be implemented over a four-year period. However, facilities can be paid fully under the new bundled system as early as 2011 (the first year of the phase in). Beginning in 2012, MIPPA also requires that the Secretary update the bundled payment rate by the market basket minus 1 percent. There is no provision under current law for the Secretary to change the composite rate.

FIGURE 2C-1

The dialysis industry is composed primarily of freestanding, for-profit facilities affiliated with a chain



Note: Total may not sum to 100 percent due to rounding.

Source: Compiled by MedPAC from the 2008 Dialysis Compare database from CMS.

The bundled payment rate will include adjustments for patient case mix (e.g., patient weight, body mass index, comorbidities, and other patient characteristics), high-cost patients, and low-volume facilities that incur high costs. In addition, the Secretary can include adjustments for geographic factors, pediatric facilities, and facilities located in rural areas.

The new law links dialysis facilities' payment to the quality of care they furnish. Beginning in 2012, the bundled payment rate will be reduced by up to 2 percent for facilities that do not achieve or make progress toward specified quality measures. Quality measures will include anemia management, dialysis adequacy, and—to the extent feasible—patient satisfaction, iron management,

**TABLE
2C-3**

Legislative and regulatory changes to the outpatient dialysis payment method

Legislation or regulation	Change in composite rate payment	Change in payment for separately billable drugs
Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA)	<p><i>In 2005:</i> Increased the base composite rate by 1.6 percent.^a Created the add-on payment to the composite rate to account for the reduction in drug payment rate. Required CMS to adjust composite rate for case mix.</p> <p><i>In 2006:</i> Required CMS to annually increase the add-on updated due to increased use and prices in separately billable drugs.</p> <p>Gave authority to CMS to update the wage index.</p>	<p><i>In 2005:</i> Reduced payment for separately billable drugs by requiring that Medicare set payment based on providers' acquisition cost.</p>
Deficit Reduction Act of 2005	<p><i>In 2006:</i> Increased the base composite rate by 1.6 percent.</p>	
Tax Relief and Health Care Act of 2006	<p><i>Effective April 1, 2007:</i> Increased the base composite rate by 1.6 percent.</p>	
Medicare Improvements for Patients and Providers Act of 2008 (MIPPA)	<p><i>In 2009 and 2010:</i> Increased the base composite rate by 1.0 percent.</p> <p><i>In 2009:</i> Lowered the base composite rate for hospital-based facilities to equal the rate for freestanding facilities.</p> <p><i>In 2011:</i> Expands the dialysis payment bundle to include: composite rate services, dialysis drugs, laboratory services, and other services furnished to treat end-stage renal disease.</p> <p><i>In 2012:</i> Links payment to the quality of care providers furnish.</p> <p><i>In 2012:</i> Requires that the Secretary annually update the payment rate for the expanded bundle by the market basket minus 1 percent.</p>	<p><i>In 2011:</i> Adds separately billable drugs into the dialysis payment bundle.</p>
CMS regulation	<p><i>In 2005:</i> Set the add-on payment at 8.7 percent of the composite rate. Adjusted payment based on age and two measures of body mass.</p> <hr/> <p><i>In 2006:</i> Updated the add-on payment by 1.4 percent, thus increasing the add-on payment to 14.5 percent of the composite rate.^b Began phasing in an updated wage index.</p> <hr/> <p><i>In 2007:</i> Updated the add-on payment by 0.5 percent, thus increasing the add-on payment to 14.9 percent. Continued to phase in changes to wage index.</p> <hr/> <p><i>In 2008:</i> Updated the add-on payment by 0.5 percent, thus increasing the add-on payment to 15.5 percent. Continued to phase in changes to wage index.</p> <hr/> <p><i>In 2009:</i> No change to the add-on payment based on a projected price decline of 1.8 percent for dialysis drugs and a projected zero growth in per patient utilization. Add-on payment is 15.2 percent of the composite rate.^c Completes four-year transition to a wage index based on core-based statistical areas.</p>	<p>Payment based on average acquisition payment, which was based on an Office of Inspector General-sponsored survey of providers' average acquisition cost.</p> <hr/> <p>Payment set at average sales price plus 6 percent. Eliminated differences in drug payment between freestanding and hospital-based facilities.</p> <hr/> <p>No change.</p> <hr/> <p>No change.</p> <hr/> <p>No change.</p>

Note: a. The base composite rate in 2005 was \$128.35 for freestanding facilities and \$132.41 for hospital-based facilities.
b. In addition, CMS moved to an average sales price-based payment method in 2006, which lowered the payment rate for dialysis drugs and required CMS to shift more drug profits to the add-on payment to maintain budget neutrality.
c. The MMA required that CMS implement the add-on payment in a budget-neutral manner. Because MIPPA increased the composite rate by 1 percent in 2009, CMS had to decrease the add-on payment to the composite rate from 15.5 percent in 2008 to 15.2 percent in 2009.

Source: MedPAC review of federal legislation and CMS regulations.

bone mineral metabolism, and maximizing the placement of the recommended type of vascular access (arteriovenous fistula). Each facility's performance scores will be reported online and posted at each facility.

MIPPA also modifies the current dialysis payment method by updating the prospective payment that covers the costs of services associated with a dialysis treatment—the composite rate—by 1 percent in 2009 and in 2010. In addition, beginning in 2009, it eliminates the difference in the base composite rate payment between hospital-based and freestanding facilities, which is consistent with the Commission's recommendation (MedPAC 2005).

At the end of this chapter, we discuss some of the issues policymakers will need to consider when implementing the new payment method.

Are Medicare payments adequate in 2009?

Each year, MedPAC makes a payment update recommendation for outpatient dialysis services for the coming year. In our framework, we address whether payments for the current year (2009) are adequate to cover the costs efficient dialysis providers incur and how much efficient providers' costs should change in the coming year (2010). Information we look at to assess payment adequacy includes beneficiaries' access to care, changes in the volume of services, and the relationship between Medicare's payments and providers' costs. In addition, the MMA requires that we consider the efficient provision of services in recommending updates.

Most of our indicators of payment adequacy are positive:

- Access to care appears to be good. Providers have sufficient capacity to meet demand.
- The growth in the number of dialysis treatments generally kept pace with the growth in the number of dialysis patients during the past decade.
- Since 2004, spending on dialysis drugs grew more slowly than in the past because of statutory and regulatory changes that lowered the payment rate for most dialysis drugs. The decline in the per treatment use of erythropoietin, the leading dialysis drug, may also be linked to a warning by the Food and Drug Administration (FDA) and recent studies reporting side effects with the use of this drug class.

- Quality is improving for some measures; for example, high proportions of patients are receiving adequate dialysis and have their anemia under control. Other measures suggest that quality improvements are needed, such as the proportion of dialysis patients who are registered on the kidney transplant waiting list.
- Providers' access to capital is good. The number of facilities—particularly for profit—continues to increase.
- The Medicare margin for composite rate services and dialysis drugs was 4.8 percent in 2007. We project the Medicare margin for composite rate services and dialysis drugs will be 1.2 percent in 2009.

Beneficiaries' access to care continues to be favorable

To assess beneficiaries' access to care, we look at:

- The capacity of providers to meet patient demand by assessing the growth rates of the dialysis population, dialysis facilities, and hemodialysis treatment stations.
- Changes in patients' ability to obtain different types of dialysis methods. Clinical factors, such as the patients' health problems, and nonclinical factors, such as training of physicians and patients' preferences, can affect the choice of dialysis. In addition, Medicare's payment policies might also affect the use of home dialysis. The Commission's 2006 and 2007 March reports provide a more complete discussion of this topic.
- Whether certain beneficiary groups face systematic problems in obtaining care. From this analysis, we assess whether certain types of patients, such as African Americans and dual-eligible patients, are having problems obtaining care.

Providers' capacity has kept pace with patient demand

Our analysis of the growth in the number of hemodialysis patients, stations, and facilities suggests that the growth in capacity appears to have kept up with the demand for care during the past decade. Since 2003, the total number of dialysis facilities and hemodialysis stations grew at annual rates of 3 percent and 4 percent, respectively, keeping up with the 4 percent per year growth in the number of dialysis patients.

Another indicator that suggests providers are able to meet the demand for care is “same-store growth”—the change in the number of hemodialysis treatments provided in consecutive years by a given provider. Facilities can increase the number of treatments they furnish by treating more patients, by providing more treatments to existing patients, and by increasing the number of shifts per day that they dialyze patients.⁵ Between 2004 and 2005, facilities increased the total number of hemodialysis treatments they furnished by 4.0 percent. Since 2000, annual same-store growth has ranged from 3.8 percent to 4.8 percent.

Access to the different types of dialysis has changed little over time

Access to specific types of dialysis shows little change over time according to data from CMS. Between 1998 and 2008, at least 96 percent of all facilities offered in-center hemodialysis and 46 percent offered some type of peritoneal dialysis—continuous cycler-assisted peritoneal dialysis or continuous ambulatory peritoneal dialysis. Between 2003 and 2008, the proportion of facilities offering home hemodialysis increased from 12 percent to 18 percent of facilities. In addition, industry data suggest that dialysis facilities are beginning to offer patients the opportunity to receive in-center nocturnal hemodialysis. For example, DaVita operates 75 facilities (representing about 5 percent of all its facilities) with in-center nocturnal programs (Mathews 2008).

Most patients receive dialysis in dialysis facilities. In 2006 (the most current year for which data are available), 92 percent of all dialysis patients received hemodialysis in a facility, while 7 percent received peritoneal dialysis (at home) and 1 percent received home hemodialysis (USRDS 2008). Between 1995 and 2006, the number of patients receiving hemodialysis in a facility increased by 6 percent per year, while the number of patients treated at home declined by 2 percent per year. However, since 2002, the number of home dialysis patients has modestly increased. Between 2002 and 2006, use of peritoneal dialysis increased from 25,355 patients to 26,114 patients, while use of home hemodialysis increased from 1,756 patients to 2,455 patients.

Despite this modest increase in home dialysis, fewer patients overall dialyzed at home in 2006 than in the mid-1990s. Home dialysis offers several advantages related to quality of life and satisfaction to those patients who are able to dialyze at home. Compared with in-center

hemodialysis, home dialysis is more convenient for patients because they can dialyze on their own schedules.

During the past few years, the use of more frequent hemodialysis (furnished either at home or in center) has also modestly increased. As mentioned in the text box (pp. 134–135), interest in more frequent hemodialysis regimens has grown substantially during the past decade because of studies showing improved outcomes and quality of life. According to CMS’s facility survey, between 2004 and 2006, the number of patients receiving more frequent hemodialysis doubled to about 1,000 patients.

Most beneficiaries do not face systematic problems in obtaining care when dialysis facilities close

As shown in Table 2C-2 (p. 136), the supply of dialysis facilities and total hemodialysis stations is increasing. But, as in prior years, we wanted to see whether the types of patients using new, continuing, and closed facilities suggest some differences in access to treatment. Specifically, we compared the characteristics of patients treated by facilities that were open in 2006 and 2007, that newly opened in 2006, and that closed in 2006.

Some of our findings are consistent with long-term trends in supply (as shown in Table 2C-2, p. 136). Compared with facilities that remained open, facilities that closed in 2006 were more likely to be:

- hospital based
- nonprofit
- less profitable than facilities that remained open as measured by the Medicare margin.

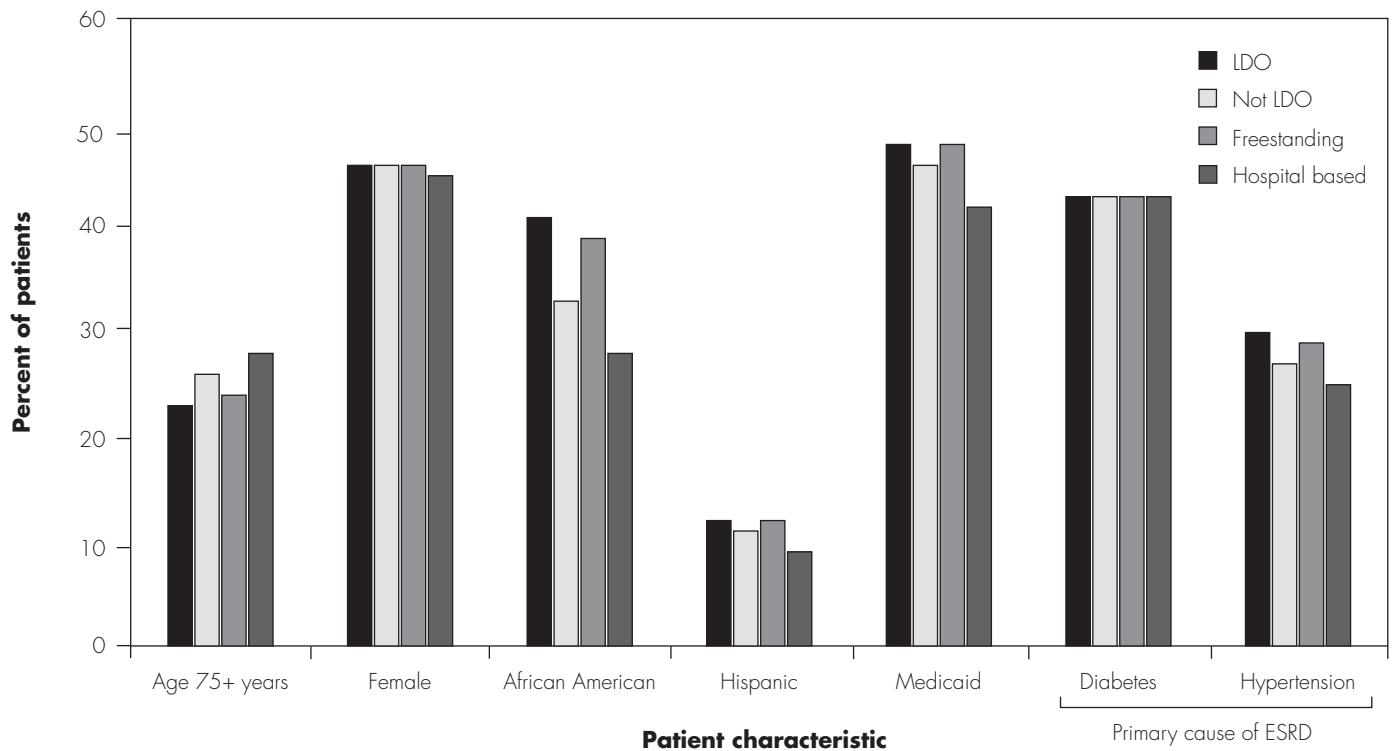
In addition, facilities that closed had less capacity than those that remained open (averaging 13 hemodialysis stations compared with 18 hemodialysis stations).

About 30 percent of facilities that closed were in rural areas, compared with 25 percent of those that stayed open in 2006 and 2007 and 25 percent of those that opened in 2007. Facility closures in rural areas do not appear to limit providers’ capacity. Between 2006 and 2007, the number of hemodialysis stations grew in rural areas by 6 percent, from about 15,800 stations to 16,800 stations.

In contrast to previous years, facilities that closed in 2006 did not have a higher share of African American and dual-eligible patients than facilities that remained open. Compared with facilities that remained in business, facilities that closed treated a smaller proportion of African

**FIGURE
2C-2**

Characteristics of dialysis patients, by type of facility, 2007



Note: LDO (large dialysis organization), ESRD (end-stage renal disease). The facility types are not mutually exclusive (see text).

Source: MedPAC analysis of dialysis claims files, denominator files, Renal Management Information System files, and Dialysis Compare files from CMS.

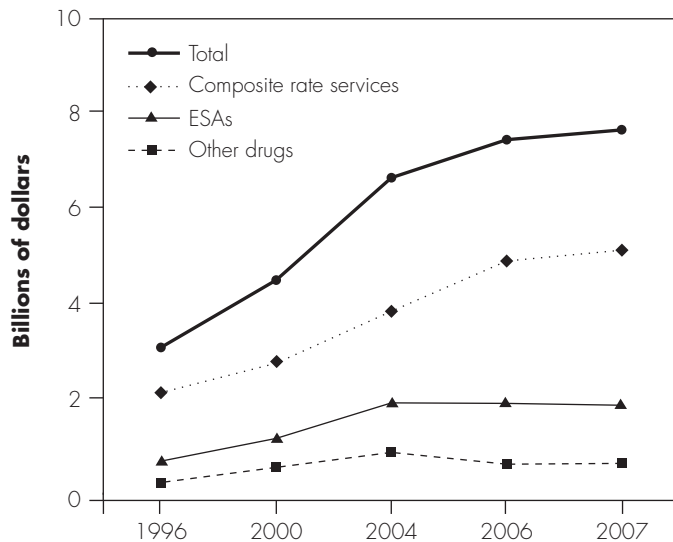
American patients (23 percent compared with 38 percent) and dual-eligible patients (44 percent compared with 47 percent). We found no substantial differences in the mix of patients by age, sex, or disease severity (measured by the Charlson index and primary cause of ESRD) among provider types.

Together, these findings suggest that most beneficiaries do not face systematic problems in obtaining care. We will continue to track whether facility closures may disproportionately affect certain patient groups, such as African Americans and dual eligibles. In the future, we intend to examine access-to-care issues for rural dialysis patients, such as whether the distances they travel to obtain dialysis care have changed over time. Longer travel times might disproportionately affect beneficiaries living in rural areas. Researchers have reported that in patients with longer travel times, a problem with transportation was a significantly more frequent reason to skip or to shorten a dialysis session (Moist et al. 2008).

The mix of patients by provider type changed little in 2006 and 2007

We examined whether providers stopped treating certain types of patients by comparing the demographic and clinical characteristics of beneficiaries. Our analysis focused on certain groups, such as the elderly and African Americans, who are disproportionately affected by renal disease. Our analysis looked at the differences by the following provider types: affiliated with the two largest national chains, not affiliated with the two largest chains, freestanding, and hospital based. As shown later in this section, some of these groups overlap; for example, the two largest chains operate about 70 percent of all freestanding facilities.

Figure 2C-2 presents, for each type of provider, the proportion of patients in 2007 who were age 75 or older, female, African American, Hispanic, and dually eligible for Medicaid. Across the different provider types, the proportion of patients with these characteristics did not

**FIGURE
2C-3****Statute and regulations changed trends in expenditures to freestanding dialysis facilities beginning in 2005**

Note: ESAs (erythropoiesis-stimulating agents). ESAs include erythropoietin and darbepoetin alfa.

Source: MedPAC analysis of claims submitted by freestanding dialysis facilities to CMS.

differ by more than 1 percentage point between 2006 and 2007 (data not shown for 2006). This analysis suggests that providers—including the two largest chains, which account for about 60 percent of all facilities—did not change the mix of patients they cared for in 2006 and 2007.

This analysis also shows that, in 2006 and 2007, freestanding facilities, which account for more than 85 percent of all dialysis facilities, were more likely than hospital-based facilities to treat African Americans and dual eligibles.

Volume of services

Between 1996 and 2007, the growth in the number of in-center hemodialysis treatments generally kept pace with the growth in the number of dialysis patients. The number of dialysis treatments increased, on average, by 6 percent annually; in comparison, the number of dialysis patients increased, on average, by about 5 percent.

Freestanding facilities treat most dialysis patients and account for nearly 90 percent of spending (about \$7.7 billion in 2007) for composite rate services and dialysis drugs (Figure 2C-3). Since 2004, total payments to

freestanding dialysis providers grew more slowly than in the past because spending on dialysis drugs decreased. Aggregate expenditures increased by about 10 percent per year between 1996 and 2004 but then slowed to a 5 percent increase between 2004 and 2007. Specifically:

- Drug expenditures by freestanding dialysis providers declined by 3 percent per year (from \$2.8 billion to \$2.5 billion) between 2004 and 2007. By contrast, between 1996 and 2004, dialysis drug expenditures grew by 15 percent per year, from \$951 million to \$2.8 billion.
- Expenditures for composite rate services increased by 10 percent between 2004 and 2007, while expenditures for these services increased 8 percent annually between 1996 and 2004.

The decline in spending on dialysis drugs is partly due to provisions in the MMA that increased Medicare's payment rate for composite rate services but lowered the rate for dialysis drugs beginning in 2005. Before the MMA, Medicare paid freestanding facilities a statutory rate for erythropoietin and 95 percent of the average wholesale price or a statutory rate for all other dialysis drugs. The MMA required that CMS base payment amounts for all dialysis drugs on providers' acquisition costs. In 2007, the agency paid 106 percent of the ASP for dialysis drugs. Thus, between 2004 and 2007, Medicare's payment rate for erythropoietin (the leading dialysis drug based on payments) dropped by 8 percent. We computed the percentage by which the 2007 payment rate was below the pre-MMA payment amounts for the leading dialysis drugs available in 2004 and 2007. When weighted by the 2007 payments to freestanding facilities for each drug, overall payment rates for the leading dialysis drugs declined by about 16 percent during this period.⁶

Despite the decrease in the payment rate, the total volume of most dialysis drugs increased between 2004 and 2007. To assess changes in drug volume, we held the drug payment rate constant and looked at the dollar change in the total volume of services for the top 11 dialysis drugs in 2004. We found that between 2004 and 2007, the total volume of dialysis drugs increased by 4 percent per year, an annual rate of growth that was slower than in the year that preceded the change in payment method.

The total volume of three injectable drugs—sodium ferric gluconate, calcitriol, and levocarnitine—has declined since 2004. Providers replaced sodium ferric gluconate and calcitriol with other injectable drugs that treat the same

comorbidities (iron deficiency and low blood calcium, respectively). Providers might be replacing injectable levocarnitine, which Part B covers, with oral levocarnitine, which Part D covers. In the future, the Commission intends to study the use of drugs covered under Part D by dialysis patients.

In addition to the MMA payment policy changes, two other factors may have contributed to a slowdown in Medicare spending for erythropoiesis-stimulating agents (ESAs)—erythropoietin and darbepoetin alfa:

- In March 2007, the FDA included a “black box warning” on ESA drug labels to advise physicians about ESA dosage adjustments: They should maintain the lowest hemoglobin level needed to avoid a blood transfusion. Hemoglobin measures a patient’s anemia status, expressed as a percentage of red blood cells in the bloodstream. The FDA added the warning based on evidence from recent studies showing that higher target hemoglobin values were associated with increased mortality and morbidity for chronic kidney disease patients (who are not on dialysis) and cancer patients.
- In April 2006, CMS changed its national payment policy for ESAs to promote the efficient use of these drugs. In 2008, the agency modified the 2006 policy based on the recent studies and the FDA warning about the risks associated with large doses of ESA and high hemoglobin levels. The policy change reduces payment for ESAs if providers do not reduce the dosage of a patient with a hemoglobin or hematocrit that exceeds 13 grams per deciliter (g/dL). The current FDA label recommends that patients’ hemoglobin levels range between 10 g/dL and 12 g/dL. National Kidney Foundation guidelines currently recommend that dialysis patients’ hemoglobin levels range between 11 g/dL and 12 g/dL (NKF 2008).

Although the total volume of erythropoietin used by dialysis patients increased between 2004 and 2007, the number of units per treatment declined during this period. We found that the units per treatment increased by 7 percent per year in the year preceding the payment change—between 2003 and 2004. By contrast, between 2004 and 2007, units per treatment declined by about 2 percent. As discussed below, patients’ anemia status, as measured by CMS, has improved between 2001 and 2006 (the most current year for which data are available).

Quality of dialysis care is improving for some measures

CMS data show that some aspects of dialysis care have improved. Between 2001 and 2006, the proportion of hemodialysis patients receiving adequate dialysis (a measure of how effectively dialysis removes waste products from the body) has increased (Table 2C-4, p. 144). The proportion of patients receiving adequate dialysis declined for one type of peritoneal dialysis (continuous cycler-assisted peritoneal dialysis). Increasing proportions of both hemodialysis and peritoneal patients have their anemia under control.

Patients’ anemia status is related to the dose of ESAs they receive. As mentioned above, recent studies have shown that targeting higher hemoglobin values and high doses of ESAs was associated with increased mortality and morbidity for chronic kidney disease patients (who are not on dialysis) and cancer patients.

In addition, use of the recommended type of vascular access—AV fistula—has improved since 2001. All hemodialysis patients require vascular access—the site on the patient’s body where blood is removed and returned during dialysis. The three basic types of vascular access are AV fistulas, AV grafts, and catheters.⁷ For most patients, clinical guidelines consider an AV fistula a better type of vascular access than an AV graft or a catheter. AV fistulas last a long time and have fewer complications, such as infections and clotting, than other types of vascular access (NIDDK 2008b). CMS is leading a national quality initiative—Fistula First—to increase the use of fistulas. CMS’s current goal is to have fistulas placed in at least half of new hemodialysis patients and to have a minimum of 66 percent of patients who continue dialysis using a fistula.

Other measures suggest that improvements in dialysis quality are still needed. Between 2001 and 2006, the proportion of dialysis patients who were registered on the kidney transplant waiting list increased from 13 percent to 16 percent of all dialysis patients, but the number fell far short of the Centers for Disease Control and Prevention Healthy People 2010 target of 30 percent. Registration for transplant is an important quality measure because most experts agree that kidney transplantation is the best treatment option for ESRD. National data are unavailable for another transplant-related quality measure—the proportion of all ESRD patients who were educated that transplantation is one of the treatment options for

**TABLE
2C-4****Dialysis outcomes continue to improve for some measures**

Outcome measure	2001	2002	2003	2004	2005	2006
Percent of in-center hemodialysis patients:						
Receiving adequate dialysis	92%	92%	94%	95%	94%	93%
With anemia under control	75	78	81	80	80	82
Dialyzed with an AV fistula	31	33	35	39	44	45
At lower risk for being malnourished	82	81	81	82	80	81
Percent of peritoneal dialysis patients:						
Receiving adequate CAPD	68	71	70	73	72	75
Receiving adequate CCPD	70	66	65	59	59	64
With anemia under control	76	81	83	82	83	85
At lower risk for being malnourished	56	60	63	62	62	63
Percent of prevalent dialysis patients wait-listed for a kidney						
	13	14	15	15	16	16
Annual mortality rate per 1,000 patient years	220	217	214	210	206	201
First-year mortality rate per 1,000 patient years	256	256	253	250	244	N/A
Total admissions per patient per year	2.06	2.05	2.04	2.06	2.06	1.97
Hospital days per patient per year	14.7	14.7	14.6	14.8	14.7	13.7

Note: AV (arteriovenous), CAPD (continuous ambulatory peritoneal dialysis), CCPD (continuous cycler-assisted peritoneal dialysis), N/A (not available). Data on dialysis adequacy, use of fistulas, and anemia management represent percent of patients meeting CMS's clinical performance measures. United States Renal Data System (USRDS) adjusts data by age, gender, race, and primary diagnosis of end-stage renal disease (ESRD).

Source: Compiled by MedPAC from 2001–2007 Annual Reports for ESRD Clinical Performance Measures Project from CMS and USRDS 2008.

ESRD and evaluated for appropriate referral. The text box (pp. 146–147) summarizes some of the issues about access to kidney transplantation and Medicare payment for persons undergoing the procedure. The Commission intends to continue to study issues related to access to transplantation.

Other quality indicators have changed little in recent years. The proportion of dialysis patients with low albumin levels has remained unchanged over time. Patients with lower serum albumin levels, a measure of increased risk of malnutrition, are at increased mortality risk. Overall rates of hospitalization have remained steady at about two admissions per year. Overall mortality and first-year adjusted mortality rates among dialysis patients have decreased during this time. By race, one-year mortality is lower among African American dialysis patients than among whites (226 vs. 259 per 1,000 patient years, respectively) (USRDS 2008).

Finally, two significant events occurred that affected the quality of dialysis care in 2008. First, updated conditions

for coverage—the health and safety rules that all Medicare and Medicaid participating dialysis providers must meet—went into effect in October 2008. The new standard modernizes Medicare's standards for delivering safe, high-quality care to dialysis patients that the agency originally published in 1976. CMS anticipates that the new standard will promote higher quality of care for dialysis patients. It focuses on the importance of patients' rights, safety, and participation in the development of their own plan of care, and it includes a framework to incorporate performance measures that the medical community associates with dialysis quality. Importantly, the new standard requires that all dialysis facilities electronically submit their patients' clinical information to CMS via a web-based software application (CROWNWeb).

Second, in 2008, the use of heparin, a blood-thinning drug that was manufactured in China, resulted in reported instances of serious injuries and deaths. Heparin is commonly used by patients before they begin dialysis as well as by patients before certain types of surgery, including coronary artery bypass graft surgery. In February

2008, a manufacturer (Baxter International, Inc.) recalled its version of heparin because of reports of harmful side effects (FDA 2008). The adverse events included allergic or hypersensitivity-type reactions, with symptoms such as low blood pressure, angioedema, shortness of breath, nausea, vomiting, diarrhea, and abdominal pain. The FDA later reported that the heparin was contaminated. The FDA linked 149 patient deaths to one or more of the allergic symptoms associated with the contaminated heparin since January 2008 (FDA 2008). The FDA announced that, as of June 2008, all supplies of heparin sold in the United States were safe.

Access to capital is adequate

Providers need access to capital to improve their equipment and open new facilities to accommodate the growing number of patients requiring dialysis. Both small and large chains appear to have adequate access to capital, as demonstrated by their ability to make large purchases and the willingness of private investors to fund their acquisitions. For example:

- Fresenius has advanced its vertical integration by purchasing one pharmaceutical manufacturer and entering into a long-term licensing agreement with another. In 2008, Fresenius's subsidiary purchased a pharmaceutical company—APP Pharmaceuticals, Inc.—for \$3.7 billion plus the assumption of \$940 million in outstanding debt. APP manufactures injectable drugs, including heparin, that dialysis patients use. To finance the purchase of APP, Fresenius secured a \$2.4 billion credit from Deutsche Bank, Credit Suisse, and JP Morgan (Reuters 2008). In addition to the APP purchase, Fresenius obtained an exclusive sublicense for 10 years to distribute, manufacture, and sell a type of injectable iron (Venofer) that dialysis patients use.⁸
- During the first 9 months of 2008, DaVita acquired six dialysis facilities, opened 22 new centers, merged 2 centers, and divested 1 center. In addition, DaVita repurchased 3,461,353 shares of its common stock for \$169.7 million (globeinvestor.com 2008). Both actions suggest that DaVita has good access to capital. In addition, DaVita was added to Standard & Poor's 500 Index.
- In October 2008, Renal CarePartners announced a \$10 million equity investment by a leading venture capital firm. Renal CarePartners intends to use the

funds from this investment to continue to expand its growing network of dialysis facilities (RenalWEB News Service 2008).

- In November 2008, Dialysis Corporation of America amended its secured revolving credit facility with KeyBank to provide for up to \$25,000,000 in financing. This three-year agreement is intended to support the company's growth and general business purposes (StreetInsider.com 2008a).
- In May 2008, Ambulatory Services of America received a \$75 million investment from Lindsay Goldberg (Nephrology News & Issues 2008). The company intends to use the funds to acquire facilities and to enable its growth strategy.
- In late 2007, a new company, Reliant Renal Care, Inc., formed with the initial placement of \$50 million in private equity (Reliant Renal Care, Inc. 2007). By the end of 2008, this new company operated eight facilities.

Home dialysis is an area that also appears to be attractive to investors. For example, Home Dialysis Plus, Ltd.—a developer of devices and products for dialysis—and Hewlett-Packard announced a licensing agreement. Home Dialysis Plus, Ltd., intends to adapt Hewlett-Packard's inkjet technology for use in its home dialysis machine to mix the correct amount of water and concentrated dialysate in real time and pump the dialysis solution into the dialyzer (Business Wire 2008). NxStage, a manufacturer of home hemodialysis equipment, announced a \$43 million private placement of its common stock (StreetInsider.com 2008b). In November 2008, NxStage announced that it ranked 14th on Deloitte's 2008 Technology Fast 500, a ranking of the 500 fastest growing technology, media, telecommunications, and life sciences companies in North America (Bio-Medicine 2008).

As mentioned earlier, an increasing proportion of dialysis providers are freestanding, bigger, owned by publicly traded companies, operated by a chain, and for profit. These trends in the profit status, size, and consolidation of dialysis providers suggest that the dialysis industry is an attractive business to for-profit providers and that potential exists for efficiencies and economies of scale in providing dialysis care.

Between 2007 and 2008, the large dialysis chains and small chains showed similar growth rates, which suggests

Kidney transplantation as a treatment option for end-stage renal disease

It is widely believed that kidney transplantation is the best treatment option for individuals with end-stage renal disease (ESRD). Transplantation reduces mortality and improves patients' quality of life (Eggers 1988, Kasiske et al. 2000, Laupacis et al. 1996, Ojo et al. 1994). In large part, the small percentage of ESRD patients receiving a transplant is due to the shortage of organs. The Organ Procurement and Transplantation Network (OPTN), a public-private partnership mandated by the Congress in 1984, coordinates the process of matching and placing organs for every transplantation in the United States. OPTN's primary goals are to increase the available supply of organs for transplantation and to improve the efficiency and equity of organ allocation (OPTN 2003).⁹ Notwithstanding organ shortages, the number of kidney transplants performed annually in the United States has nearly doubled since 1991, reaching more than 18,000 in 2006 (USRDS 2008).

Like dialysis, the cost of kidney transplantation is covered by Medicare for any ESRD patient who is eligible for Social Security benefits, even those under age 65 years. Initially, the 1972 amendments to the Social Security Act extended full Medicare benefits to kidney transplantation patients for one year. Current law mandates that all individuals receiving

a Medicare-covered transplant are eligible for full Medicare benefits—including the immunosuppressive drug benefit—for 36 months after a transplant. Some observers have questioned whether the 36-month eligibility period affects patient outcomes. Little evidence in the peer-reviewed literature connects Medicare coverage to patients' adherence to their immunosuppressive drug regimen (which is crucial for the success of a kidney transplant). However, some peer-reviewed research reports that the higher rate of kidney graft failure for lower income patients (compared with higher income patients) decreased after the Congress extended the post-transplantation Medicare eligibility period for the immunosuppressive drug benefit from one year to three years (Woodward et al. 2008, Woodward et al. 2001, Yen et al. 2004).

The percentage of ESRD patients wait-listed for a kidney transplant has steadily increased over the past two decades. In 2006, 70,000 individuals (or roughly 16 percent of all dialysis patients) were on the waiting list (USRDS 2008).¹⁰ Patients aged 50–64 represent 42 percent of the waiting list. More wait-listed patients were male (58 percent) than female (42 percent). About two-thirds of patients received a kidney from a deceased donor while one-third received a kidney from a live donor.

(continued next page)

that both small and large providers have adequate access to capital. During this period, the number of hemodialysis stations operated by Fresenius and DaVita grew by 4 percent. The smaller chains, which currently operate between 29 and 205 units, grew, in terms of number of hemodialysis stations, by an average of 3 percent between 2007 and 2008. These smaller chains include Dialysis Clinic, Inc.; National Renal Institutes; American Renal Associates; Renal Research Institute; Dialysis Corporation of America; Satellite Healthcare; and Renal Advantage and National Renal Alliance, which recently merged.

The two largest national chains have enjoyed mostly positive ratings from financial analysts in 2008.

Investor analysts generally viewed dialysis providers' fundamentals—including the aging of the U.S. population, the higher incidence of diabetes, and recurring demand—as favorable from an economic perspective. According to Wachovia, “the dialysis sector [is] a safe haven for investors, with minimal risk of downward earnings revisions on financing pressure.” In addition, Wachovia noted that “[the] volume growth is consistent and not subject to economic pressure” (Wachovia 2008). These investor analysts concluded that the reimbursement outlook is positive, with Medicare's payment set through 2010 with 1 percent updates for both 2009 and 2010 and the statutory update beginning in 2012.

Kidney transplantation as a treatment option for end-stage renal disease (cont.)

Access to kidney transplantation is not distributed uniformly across the ESRD population. In 2006, the incident rate of ESRD was 3.6 times higher for African American patients than for white patients, yet African Americans received 24 percent of total kidney transplants, compared with the 66 percent of transplants that went to white ESRD patients (USRDS 2008). Similarly, African Americans represented 35 percent of the transplant waiting list while more than half the wait-listed patients were white (USRDS 2008). Researchers have found that African American patients are less likely than white patients to be deemed appropriate candidates for a kidney transplant. They are also less likely than white patients to be referred for evaluation, much less receive a complete evaluation (Epstein et al. 2000). Even African Americans who are referred to the transplant waiting list are likely to spend more time on dialysis than white patients, a factor that decreases the probability of a successful transplant (Cass et al. 2003, USRDS 2008). The Commission intends to continue to monitor access to transplantation.

Access to transplantation also varies by insurance status. The uninsured population is far more likely to donate a kidney than to receive a transplant, as a recent study shows. While roughly 18 percent of kidney donors are uninsured, few kidney recipients are uninsured (Herring et al. 2008). This finding is associated with the availability of Medicare benefits

to most people with ESRD. Research also suggests that Medicaid ESRD patients may be less likely to be placed on the transplant waiting list than their dually eligible Medicare/Medicaid or Medicare counterparts (Thamer et al. 1999).

Finally, residence in a rural area decreases the likelihood of obtaining a new kidney. Researchers found that residents of isolated rural areas and micropolitan regions were significantly less likely to obtain a kidney transplant. However, rural patients on the waiting list for a new kidney did not wait longer than their urban counterparts and there were no significant differences in post-transplantation outcomes between geographic areas (Axelrod et al. 2008).

An additional factor that might affect whether an ESRD patient is wait-listed for a kidney transplant is ownership of the dialysis facility. While the research is almost 10 years old, researchers found that for-profit ownership of dialysis facilities, compared with not-for-profit ownership, correlated with decreased rates of placement on the kidney waiting list (Garg et al. 1999). By implementing education of pre-ESRD patients about the different treatment options, including transplantation, the Medicare Improvements for Patients and Providers Act of 2008 may narrow the gap between waiting list placement rates by facility. ■

At the same time, investor analysts have pointed out that dialysis providers face potential pressures from private payers. Although Medicare is the primary payer for about 80 percent of these chains' patients, the proportion of revenues from Medicare is about 60 percent. Revenues from commercial payers account for about 40 percent of the chains' revenues.

The recent economy-wide turmoil in the capital markets does not appear to have significantly impaired access to capital for the publicly traded dialysis facilities. For example, a representative from Fresenius announced that the company is seeing little impact from the circumstances (Forbes.com 2008).

Investigations by the federal and state governments could affect a company's ability to gain access to capital. The OIG is reviewing the appropriateness of claims submitted by dialysis facilities for erythropoietin and other dialysis drugs. The OIG intends to determine whether facilities supported and billed the claims in accordance with Medicare requirements. In December 2008, DaVita received a subpoena from the OIG for documents related to Medicare claims for several dialysis drugs including erythropoietin. The OIG is also beginning to look into whether the dosing guidelines used by dialysis facilities for ESAs adhere to FDA labeling guidelines. The FDA modified ESAs' labeling in 2007 because of the health

**TABLE
2C-5****Medicare margin in 2007 varies
by type of freestanding provider**

Provider type	Percent of spending by freestanding facilities	Medicare margin
All	100%	4.8%
Largest two chains	68	6.9
All others	32	0.2
Urban	82	5.1
Rural	18	3.1

Source: Compiled by MedPAC from 2007 cost reports and 2006 outpatient claims submitted by facilities to CMS.

risks associated with high doses of these biologics. The OIG's review will address concerns that some facilities may be using guidelines, standards, and protocols that are not consistent with FDA's revised labeling recommendations.

Payments and costs for 2007

We assess freestanding providers' costs and the relationship between Medicare's payments and freestanding providers' costs by considering whether current costs approximate what efficient providers would spend on delivering high-quality care. The latest and most complete data available on freestanding providers' costs are from 2007.¹¹

When considering whether payments in the current year are adequate, we account for policy changes (other than the update) that are scheduled to take effect in the policy year under current law. In 2007 and 2008, CMS paid providers ASP plus 6 percent for all dialysis drugs. The MMA required that CMS, beginning in 2006, annually increase the add-on payment based on the estimated growth in drug spending from the previous year. The 2008 add-on payment of 15.5 percent also included an update of 0.5 percent. CMS did not change the add-on payment for 2009 because the agency concluded that per patient utilization of dialysis drugs would not grow between 2008 and 2009. However, because MIPPA increased the composite rate payment by 1 percent in 2009, CMS is required by law to adjust the add-on payment to maintain budget neutrality. Thus, the add-on payment is 15.2 percent of the composite rate in 2009.

Appropriateness of current costs

Because the composite rate is set prospectively, providers have an incentive to restrain their costs for composite rate services. In contrast, because Medicare pays for dialysis drugs on a per unit basis, providers have an incentive to negotiate lower drug prices but they have little incentive to restrain drug volume. At issue is whether aggregate dialysis costs provide a reasonable representation of costs that efficient providers would incur in furnishing high-quality care.

Between 2000 and 2007, the cost per treatment for composite rate services and drugs rose by 3.3 percent per year. The variation in cost growth across freestanding dialysis facilities shows that some facilities are able to hold their cost growth well below others'. For example, per treatment costs increased by 2.0 percent per year for facilities in the 25th percentile of cost growth, compared with 4.7 percent for facilities in the 75th percentile.

The growth in the cost per treatment during that period partly stems from rising general and administrative costs, which increased by 9 percent per year and accounted for about 30 percent of the total cost per treatment in 2007. General and administrative costs include expenses associated with legal and accounting services, recordkeeping and data processing tasks, telephone and other utilities, and malpractice premiums. By contrast, capital and labor costs (associated with direct patient care) increased by 2 percent per year while other direct medical costs decreased by 2 percent per year between 2000 and 2007. Capital, labor, and other direct medical costs accounted for 19 percent, 41 percent, and 11 percent, respectively, of the total cost per treatment in 2007.

The Medicare margin for freestanding providers

The Commission assesses current payments and costs for dialysis services for freestanding dialysis facilities by comparing Medicare's payments for composite rate services and dialysis drugs with providers' Medicare-allowable costs. The latest and most complete data available on freestanding providers' costs are from 2007.

For 2007, we estimate that the aggregate Medicare margin for composite rate services and dialysis drugs was 4.8 percent (Table 2C-5). The distribution of margins in 2007 shows wide variation in performance among freestanding dialysis facilities as well as variation by other facility groupings. One-quarter of freestanding facilities had margins at or below -2.2 percent, but half of the facilities had Medicare margins of at least 6.2 percent, and one-

quarter of the facilities had Medicare margins of at least 14.1 percent.

As in earlier years, facilities affiliated with the largest two chains tended to have higher margins than other freestanding facilities (6.9 percent vs. 0.2 percent). In addition, between 2006 and 2007, the difference in the margin for the largest two chains and other freestanding facilities widened. Last year we reported that the 2006 aggregate margin was 7.6 percent for the two largest dialysis chains and 2.0 percent for other freestanding facilities (MedPAC 2008). The difference in margins between the largest two chains and other freestanding facilities stems from differences in the composite rate cost per treatment and drug payment per treatment. Compared with their counterparts, facilities affiliated with the two largest chains had lower composite rate costs per treatment and higher drug payments per treatment. The latter finding stems from differences in the provision of dialysis drugs; the two largest chains furnish, on average, a higher volume of dialysis drugs than other freestanding facilities.¹² In addition, dialysis drugs are more profitable for the two large dialysis chains than for other freestanding facilities (OIG 2007).

Margins also varied based on the location of a facility. Consistent with our past findings, urban facilities had a greater Medicare margin than rural facilities. This finding partly stems from differences in the provision of dialysis drugs: on average, urban facilities furnish a greater volume of dialysis drugs than rural facilities.

The aggregate 2007 margin dropped by about 1 percentage point from the 2005 and 2006 margins, which we estimated to be 5.8 percent and 5.9 percent, respectively (MedPAC 2008, MedPAC 2007). Changes in per treatment payment and costs can explain this direction. Medicare's payment per treatment for dialysis drugs, which accounts for about one-third of the total per treatment payment, dropped slightly between 2006 and 2007 because the per treatment dose of erythropoietin fell. (This drug accounts for about 70 percent of the dialysis drug payment.) This decline is linked to changes in providers' practice patterns in furnishing dialysis drugs. As mentioned above, recent studies have shown that some patients experience excess mortality and morbidity when given high doses of erythropoietin. In addition, CMS's payment policy was modified in 2006; the policy change reduces payment for ESAs if providers do not reduce the dosage of a patient with a hemoglobin or hematocrit that exceeds 13 g/dL. In addition, between 2005 and 2007, the cost per treatment

for composite rate services grew by 4.9 percent per year while the legislated increase in the composite rate was 1.6 percent in both 2005 and 2006 and was 1.6 percent beginning in April 2007.

On the basis of 2007 payment and cost data, we estimate that the 2009 aggregate margin is 1.2 percent. This estimate reflects the 1 percent composite rate update in MIPPA, effective January 1, 2009. This estimate also reflects the 0.5 percent updates to the composite rate's add-on payment in 2008. (In 2009, CMS did not update the add-on payment.)

How should Medicare's payments change in 2010?

CMS measures price inflation for the goods and services associated with the composite rate. CMS's latest forecast of this index for calendar year 2010 is 2.5 percent. In assessing projected increases in providers' costs, the Commission also takes into account improvements in productivity. Competitive markets demand continual improvements in productivity from workers and firms. These workers and firms pay the taxes used to finance Medicare. Medicare's payment systems should exert the same pressure on providers of health services. The Commission begins its deliberations with the expectation that Medicare should benefit from productivity gains in the economy at large (the 10-year average of productivity gains in the general economy is currently 1.3 percent). This factor links Medicare's expectations for efficiency to the gains achieved by the firms and workers who pay taxes that fund Medicare. The Commission's assessment of dialysis providers' historical responsiveness to changes in payments, along with the other components of the update framework discussed above, suggests that it is reasonable to apply a productivity adjustment to the composite rate update to encourage dialysis providers to produce a unit of service as efficiently as possible while maintaining quality.

Update recommendation

The evidence on payment adequacy suggests that a moderate update of the composite rate is in order. Therefore, the Commission recommends that the Congress maintain current law and update the composite rate by 1 percent for calendar year 2010. By comparison, an update based on the current forecast of the ESRD market basket (2.5 percent) less the Commission's adjustment for productivity growth would have yielded an update

of 1.2 percent, which closely approximates current law. (Note that CMS revises its market basket projections on a quarterly basis.)

RECOMMENDATION 2C

The Congress should maintain current law and update the composite rate in calendar year 2010 by 1 percent.

RATIONALE 2C

Most of our indicators of payment adequacy are positive, including beneficiaries' access to care, volume of services, quality of care, and access to capital. The Medicare margin decreased by about 1 percentage point between 2006 and 2007.

IMPLICATIONS 2C

Spending

- Because there is a provision in current law to update the composite rate in 2010, this recommendation would not increase federal program spending.

Beneficiary and provider

- This recommendation does not increase beneficiary cost sharing relative to current law. We do not anticipate any negative effects on beneficiary access to care. This recommendation is not expected to affect providers' willingness or ability to serve beneficiaries. Any increase to the composite rate will increase beneficiary cost sharing. Some dialysis providers help financially needy patients by paying the premiums of Part B and medigap policies through a fund administered by the American Kidney Fund. In addition, Medicare reimburses dialysis providers for bad debt incurred from furnishing composite rate services.

The Commission has a long-standing recommendation to link payment to the quality of care that facilities and physicians furnish to patients. In 2004, we first recommended implementing a payment incentive program. MIPPA mandates that, beginning in 2012, the Secretary link Medicare's payment (under a bundled payment system) to the quality providers furnish.

Modernizing the dialysis payment method: Issues to consider

MIPPA mandates substantial changes to the outpatient dialysis payment method. The new law modernizes the payment method by expanding the payment bundle to

include drugs, laboratory services, and other commonly furnished items that providers currently bill separately and by linking payment to quality. The Commission has examined some of the issues that policymakers will need to consider in implementing the new law.

Defining the payment bundle

The broader payment bundle will include injectable ESRD drugs and laboratory services for which facilities currently receive separate payment under Part B. It will also include the oral equivalents to the injectable drugs. The Commission, Government Accountability Office (2006), and others have supported expanding the composite rate bundle to create incentives for providers to furnish services more efficiently and to improve the quality of dialysis care.

The new law gives the Secretary the discretion to include other items and services that are furnished to dialysis beneficiaries for the treatment of ESRD. The Commission previously noted that including other services needed by most dialysis patients, like nutritional services (e.g., oral supplements) and Medicare-covered preventive services, might control total spending and lower the high level of morbidity among this population (MedPAC 2008, MedPAC 2005). Part D drugs used to treat ESRD-related comorbidities may be another candidate for the expanded bundle. Their inclusion might help ensure that beneficiaries receive appropriate care and that providers do not substitute Part D drugs for drugs that are covered under the broader dialysis bundle.

Unit of payment

The Secretary has discretion over the unit of payment for ESRD services, which is currently a single dialysis session. Changing the unit of payment to either a week or a month might give providers more flexibility in furnishing care. In addition, a weekly or monthly unit of payment is more consistent with the provision of peritoneal dialysis and short daily or nocturnal hemodialysis administered five to seven times per week. However, a weekly or monthly unit of payment may be administratively more difficult for CMS to administer. Expanding the unit of payment to a week or a month would require the agency to adjust the rate for patients who do not receive dialysis when they are hospitalized, are traveling, or do not show up for their scheduled dialysis treatment (i.e., not adhering to their prescribed treatment regimen). As noted earlier, dialysis patients are hospitalized for more than 13 days per year on average.

**TABLE
2C-6**

The broader payment bundle will be adjusted for patient case mix, high-cost cases, facilities with low volume, and other factors

Adjustment	MIPPA	Current law
Case mix*	Factors will include—among others—patient weight, body mass index, comorbidities, number of years that a beneficiary has received dialysis, age, race, and ethnicity.	The composite rate is adjusted for patients’ age and two body measurement variables. There is no adjustment to Medicare’s payment for dialysis drugs separately paid for under Part B.
High-cost patients*	This factor will adjust for unusual variations in the type or amount of necessary care, such as variations in the amount of erythropoiesis-stimulating agents that treat anemia.	There is no adjustment for high-cost patients under the composite rate. Facilities bill on a per unit basis for Part B dialysis drugs not included in the composite rate. Thus, facilities are paid for the higher doses of drugs they furnish (as long as the drugs are medically reasonable and necessary).
Low-volume facilities*	This factor will adjust for the higher costs incurred by low-volume facilities. The adjustment will not be less than 10 percent during the phase in of the broader payment bundle (2011–2013). The new law gives the Secretary discretion in defining low-volume facilities.	There is no such adjustment under current law. However, facilities are reimbursed for their bad debt associated with composite rate services.
Pediatric patients**	The Secretary may include a payment adjustment for pediatric facilities.	Medicare provides for an exception to the composite rate for a facility with at least 50 percent of its patients under the age of 18.
Geographic factors**	The Secretary may include a payment adjustment for geographic factors.	CMS adjusts the composite rate for differences in local input prices by using the Office of Management and Budget’s Core-Based Statistical Areas. The agency uses the acute care hospital wage and employment data for fiscal year 2004 to calculate the ESRD wage indexes in 2008. The labor-related portion of the composite rate is 53.7 percent for both provider types.
Rural facilities**	The Secretary may include a payment adjustment for rural facilities.	There is no such adjustment under current law.

Note: MIPPA (Medicare Improvements for Patients and Providers Act of 2008), ESRD (end-stage renal disease).

*The Secretary is required to adjust payment for this factor.

**The Secretary has the option to adjust payment for this factor.

Adjusting the payment rate for patient case mix, high-cost cases, and other factors

The new law mandates that the Secretary adjust the expanded bundle for (1) high-cost outliers, (2) facilities with low volume, and (3) patient case mix. The Secretary has the discretion to maintain an adjustment for geographic factors and create new adjustments for facilities that treat a high proportion of pediatric patients and facilities located in rural areas. Table 2C-6 compares

the adjustments to the payment rate under MIPPA with the adjustments under current law.

Several issues exist for policymakers to consider when implementing these adjustments. For example, one adjustment involves increasing the payment rate for low-volume facilities with higher than average costs. MIPPA requires that the adjustment not be less than 10 percent during the phase-in of the broader payment bundle between 2011 and 2013. At issue is whether such an

adjustment is necessary for low-volume high-cost facilities that are close to other facilities. Adjusting the payment rate for such facilities, regardless of their proximity to other facilities, does not seem consistent with the notion of promoting provider efficiency. The new law gives the Secretary discretion in defining low-volume facilities.

The Commission's analysis of 2007 cost reports suggests that about one-quarter of low-volume high-cost facilities are located within two miles of another facility. In that analysis, we defined low-volume facilities as those with less volume than facilities in the 90th percentile of in-center hemodialysis treatments and high-cost facilities as those whose cost per hemodialysis treatment was greater than that for facilities in the 90th percentile of costs. Our preliminary analysis suggests that about 120 facilities met this definition of low volume and high cost. The average distance to the closest dialysis facility—13.4 miles—masks differences at the extremes: One-quarter of facilities were within about 2 miles of another facility while another one-quarter of facilities were more than 21 miles from the closest facility. Policymakers will need to consider whether payment adjustments should be made to facilities in close proximity to another facility.

Another issue warranting further examination is the overlap or duplication among payment adjustments. For example, the adjustments for geographic factors, facilities located in rural areas, and low volume would together affect the payment rate based on the facility's geographic location.

Payment for different types of dialysis

Another key issue to consider under the broader payment bundle is whether Medicare should continue to pay the same rate for all types of dialysis. Currently, CMS pays the same composite rate for the various dialysis methods. The Congress called for the same rate when this payment system was created in 1981 to encourage the use of home dialysis.

Under a broader bundle, the Secretary could set the same rate for all dialysis methods, which would give some incentive for providers to furnish lower cost treatments. Providers' costs to furnish peritoneal dialysis are lower, on average, than their costs to furnish in-center hemodialysis. Between 2000 and 2007, the cost per treatment for composite rate services was 3 percent to 15 percent lower for peritoneal dialysis than for in-center hemodialysis. In addition, peritoneal dialysis patients on average use less dialysis drugs per treatment than in-center hemodialysis

patients. Commission and USRDS data both show that per capita drug payments are, on average, lower for peritoneal dialysis than for in-center hemodialysis.¹³ Alternatively, the Secretary could set different payment rates for each method based on the resources each method requires.

Implementing a pay-for-performance program in 2012

The new law takes several steps to ensure that facilities continue to provide high-quality care under the new payment method. The Secretary must develop measures assessing each facility's anemia management and dialysis adequacy and, to the extent possible, indicators of patient satisfaction, iron management, bone mineral metabolism, and vascular access.

In general, the Secretary must select measures endorsed by a consensus entity with a contract under section 1890(a).¹⁴ The Secretary has the authority to use a measure not endorsed by the consensus entity as long as due consideration is given to measures endorsed by the consensus entity. The Secretary is required to establish a process for updating the measures.

In addition to the measures specified in the law, there may be other measures the Secretary could explore using the pay-for-performance program. For example, serum albumin level is a potential measure not mentioned in MIPPA. It is a marker for patients being at increased risk for malnutrition; patients with comparatively lower serum albumin levels have a higher risk for malnutrition, hospitalization, and mortality (Lacson et al. 2009). Also, protein energy malnutrition, which is common among dialysis patients, is one of the strongest predictors of hospitalization and mortality. Surveys suggest that up to 70 percent of dialysis patients have protein energy malnutrition (NKF 2008). The Secretary could explore these and other clinical measures that assess patients' nutritional status.¹⁵

Linking payment to nutritional status would give providers an incentive to improve patients' quality of care. Under a broader bundle, providers would have the flexibility of improving patients' nutritional status as they see fit. For example, dietitians could provide additional counseling to patients on eating healthier diets. In addition, providers could furnish oral supplements to those patients who would benefit from the treatment. In 2007, the Commission convened an expert panel of physicians who treat dialysis patients (MedPAC 2008). The panel noted that, although eating healthier diets is ideal, the constraints

many patients face led most panel members to suggest the use of oral supplements, which they estimated would benefit more than half of all dialysis patients.

The Secretary could also consider whether to rely primarily on intermediate outcomes that measure clinical outcomes, such as dialysis adequacy and anemia management, or to include measures that assess rates of morbidity, such as admissions to inpatient hospitals, use of emergency departments, and mortality. Researchers have found that in patients receiving long-term hemodialysis, meeting multiple clinical measure targets (dialysis adequacy, anemia management, use of AV fistula for vascular access, and serum albumin as a proxy for nutritional status) is associated with a decrease in hospitalization and mortality rates (Rocco et al. 2006). Specifically, there was a progressive increase in the risk for one-year mortality and hospitalization rates for each clinical measure that was not met. At issue is whether morbidity and mortality measures together might be a more holistic way to capture improvements in a patient's clinical condition than individual intermediate outcomes.

To assess each facility's performance, the Secretary will calculate a performance score for each quality measure. In addition, the Secretary will develop a total performance score calculated by weighting the individual performance measures to reflect the priorities for quality improvement.

The individual and total performance scores will be publicly available online and posted at each facility.

Each year, the Secretary will develop a performance standard for assessing facilities' quality of care. Specifically, the new law requires that the Secretary:

- develop a performance standard based on levels of achievement and improvement using the selected quality measures.
- set a one-year performance period.
- establish the performance standard before the beginning of the performance period under assessment.

Providers may meet performance standards by demonstrating improvement or high levels of achievement. The law permits the Secretary to reduce the bundled payment rate by a maximum of 2 percent for facilities that do not achieve or make progress toward the performance standard. Facilities achieving the lowest total performance scores will receive the largest reduction in payments.

The new law specifies the initial performance standard. Each facility's performance on anemia management and dialysis adequacy will be measured against the lesser of its performance between 2007 and 2009 or the national performance rate. ■

Endnotes

- 1 Individuals with a diagnosis of ESRD who are not eligible for Medicare coverage either do not qualify for fully or currently insured status under Social Security or have not filed an application to become eligible.
- 2 New dialysis patients include those who are not eligible for Medicare either because they do not meet the eligibility criteria (explained in Endnote 1) or because they have not yet applied for Medicare coverage.
- 3 According to CMS's facility survey, 5 percent of all dialysis patients were not enrolled in the Medicare program in 2004 and 2005.
- 4 In 2005, Medicare used three different ways to pay for dialysis drugs: (1) For the top 10 dialysis drugs that accounted for the greatest payment in 2004, Medicare paid freestanding providers by using a method called the average acquisition payment. To calculate this rate, CMS used the acquisition costs the Office of Inspector General collected in a 2003 survey of freestanding providers. (2) For all other dialysis drugs furnished by freestanding providers, CMS used a different method—average sales price. This method uses the prices manufacturers report to the agency each quarter. CMS set the 2005 rates for these drugs at average sales price plus 6 percent. (3) Unlike freestanding providers, CMS paid hospitals their reasonable costs for all dialysis drugs except erythropoietin. CMS paid the same average acquisition payment rate as freestanding providers.
- 5 Facilities can increase the number of treatments provided to a given patient by: (1) improving patients' compliance in attending their thrice weekly hemodialysis treatments, and (2) reducing the number of days that patients are hospitalized. CMS pays for three hemodialysis treatments per week.
- 6 Leading drugs available in 2004 and 2007 included in this analysis are erythropoietin, calcitriol, doxercalciferol, iron sucrose, levocarnitine, paricalcitol, sodium ferric gluconate, darbepoetin alfa, alteplase, and vancomycin.
- 7 Physicians create an AV fistula by joining an artery to a vein under the patient's skin (frequently in the forearm). A few months are usually needed to allow the AV fistula to properly develop before it can be used during dialysis. Physicians may implant an AV graft for certain patients (including those with small or weak veins) who are not candidates for an AV fistula. Like AV fistulas, physicians implant AV grafts under the skin, usually in the patient's forearm. AV grafts use a soft plastic tube to join an artery and a vein. Compared with AV fistulas, AV grafts can be used sooner after placement, often within two to three weeks. Catheters placed in the patient's neck, chest, or leg are used as a temporary access when a patient needs dialysis immediately and is waiting for an AV fistula or AV graft to mature. They are also used when an AV fistula or graft fails.
- 8 The Federal Trade Commission's (FTC's) review of the agreement between the two companies raised concerns that Fresenius's vertical integration could increase Medicare's payment rate (average sales price) for Venofer. Therefore, the FTC issued a consent order that is preventing Fresenius from reporting an intracompany transfer price to CMS for Venofer higher than the level determined in the consent order, which was determined from current market prices.
- 9 In the 1984 National Organ Transplantation Act, the Congress created the Organ Procurement and Transplantation Network (OPTN). OPTN is a public-private partnership, administered by the United Network for Organ Sharing (UNOS). Since 1986, UNOS has collected and managed data on every organ transplant occurring in the United States and facilitated the organ matching and placement processes (UNOS 2009, OPTN 2003).
- 10 However, the USRDS reports that only 46,000 wait-listed patients were considered active.
- 11 We do not include hospital-based providers in the margin analysis, because cost data for dialysis drugs are missing from the cost reports for most of these providers.
- 12 Other researchers have also reported that, on average, the largest two chains provide a greater volume of dialysis drugs (on a monthly basis) than their counterparts (USRDS 2008).
- 13 A previous Commission analysis reported that Medicare's payment for dialysis drugs averaged \$90 per treatment for in-center hemodialysis patients compared with \$31 per treatment for peritoneal dialysis patients in 2003 (MedPAC 2006). More current USRDS analyses also show differences in per capita drug payments between the dialysis types (USRDS 2008).
- 14 Section 1890(a) of MIPPA requires that the Secretary contract with a consensus-based entity, such as the National Quality Forum, as soon as practicable for a four-year period.
- 15 No single measure provides a comprehensive indication of protein energy nutritional status. Although researchers and clinicians use serum albumin as an indicator of nutritional status, other conditions, such as acute or chronic inflammation, can affect a patient's albumin level. The Commission's expert panel of physicians who treat dialysis patients suggested several potential measures including serum albumin concentrations, C-reactive protein levels, and some measure of weight loss (e.g., a 5 percent to 10 percent weight loss) over time (MedPAC 2008).

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SECTION
2D

Skilled nursing facility services

R E C O M M E N D A T I O N

The Congress should eliminate the update to payment rates for skilled nursing facility services for fiscal year 2010.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

Skilled nursing facility services

Section summary

Our indicators of the adequacy of Medicare payments to cover the costs of skilled nursing facility (SNF) services to beneficiaries are generally positive. These indicators include a stable supply of providers, a slight increase in service volume, and growth in Medicare margins. Quality indicators were mixed. Access to capital is tight, reflecting general uncertainty in the financial markets, not the adequacy of Medicare payments.

Supply and access to care—The supply of SNFs has remained essentially the same over the past four years, at about 15,000 providers. There were five fewer facilities in 2008 than in 2007. Most SNFs are freestanding and two-thirds are for profit. The shares of stays treated in for-profit facilities and freestanding facilities continue to increase.

The number of beneficiaries who used SNF services increased slightly between 2006 and 2007. Most beneficiaries continue to have good access to services, especially rehabilitation services. However, patients needing medically complex care (those in the clinically complex and

In this section

- Are Medicare payments adequate in 2009 and how should they change in 2010?
- Update recommendation
- Revising the PPS

special care case-mix groups) may experience delays in placement. In 2006, fewer facilities admitted medically complex patients than admitted rehabilitation patients. Since 2002, admissions of medically complex patients have been increasingly concentrated in fewer facilities. This trend reflects distortions in the current payment system and the Commission has previously made recommendations to correct them (MedPAC 2008b).

Volume of services—Between 2006 and 2007, covered days for fee-for-service enrollees increased slightly (1.7 percent) while admissions remained flat. Days continued to shift to rehabilitation case-mix groups and within them to those groups with higher payments. Industry reports indicate that days in these case-mix groups are highly desirable, suggesting that the days are relatively more profitable than days in other case-mix groups.

Quality of care—Two quality measures for SNFs continued to show mixed trends. Between 2005 and 2006, rates of discharge to the community increased (indicating improved quality), while rates of potentially avoidable rehospitalizations also increased (indicating worse quality).

Access to capital—Access to capital is tight, reflecting broader lending conditions in the U.S. economy rather than the adequacy of Medicare's payments. Medicare continues to be a preferred payer because its payments exceed those of other payers. Industry reports describe strategies providers pursue to expand their Medicare revenues, particularly through rehabilitation care, suggesting that Medicare payments are adequate.

Payments and costs—Between 2006 and 2007, Medicare costs for freestanding SNFs grew faster than in the period between the two previous years. However, Medicare payments continued to outpace SNF costs, in part because of the increase in the days classified into the highest payment case-mix groups. As a result, the aggregate Medicare margin for freestanding SNFs was 14.5 percent in 2007, making it the seventh consecutive year

that the aggregate Medicare margin exceeded 10 percent. We project the aggregate margin for 2009 will be 12.6 percent.

Because indicators are generally positive and SNF payments are more than adequate to accommodate anticipated cost growth, we recommend a zero update for 2010. Together with this recommendation about the level of payments, we reiterate our previous recommendations that would affect the distribution of payments: to revise the SNF payment system and adopt a pay-for-performance program. The increasing concentration of medically complex cases in fewer SNFs, the continued growth and intensification of rehabilitation days (which are more profitable than other days), and the wide variation in Medicare margins underscore the inequities and poor incentives of the current design. The recommended prospective payment system redesign would shift payments from rehabilitation patients to patients with medically complex care needs and to those requiring high-cost nontherapy ancillary services. These revisions would more accurately reflect providers' costs to treat different types of cases, reduce the incentives to select certain patients over others, and narrow the range of Medicare margins across facilities. A pay-for-performance program would redirect payments to high-quality facilities and away from facilities with poor quality, thereby increasing the value of the program's purchases. ■

The Congress should eliminate the update to payment rates for skilled nursing facility services for fiscal year 2010.

Recommendation 2D

COMMISSIONER VOTES:
YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

Background

Fee-for-service (FFS) beneficiaries who need short-term skilled nursing or rehabilitation services on an inpatient basis are eligible to receive covered services in skilled nursing facilities (SNFs). For each spell of illness, Medicare covers up to 100 days of SNF care after a medically necessary hospital stay of at least three days.¹ Covered SNF services include skilled nursing care, rehabilitation services (physical and occupational therapy and speech–language pathology services), and other ancillary services, such as respiratory therapy and medications.² For services to be covered, the SNF must meet Medicare’s conditions of participation and agree to accept Medicare’s payment rates.³ For beneficiaries who qualify for a covered stay, Medicare pays 100 percent of the payment rate for the first 20 days of care; after that point, beneficiaries are responsible for copayments (in 2009 the copayment is \$133.50 per day). Nearly 5 percent of FFS beneficiaries used SNF services at least once in 2007.

The most common diagnosis for a SNF admission in 2006 was a major joint and limb reattachment procedure of the lower extremity, typically a hip or knee replacement (Table 2D-1). The 10 most frequent conditions accounted for more than one-third of all SNF admissions. Freestanding, hospital-based, for-profit, and nonprofit facilities each

had the same top 10 diagnoses, with the same top 6 rank orderings of the conditions. Hospital-based facilities had more than double the share of major joint procedures (making up 14 percent of admissions compared with 6 percent for freestanding facilities).

Medicare spending on SNF services

In fiscal year 2007, spending for SNF services was \$22.1 billion, up more than 12 percent from 2006 (Figure 2D-1, p. 164). Spending increases averaged more than 11 percent annually between 2000 and 2007.

Medicare actuaries projected that SNF spending in 2008 was \$22.8 billion, a 3.4 percent increase from 2007. Compared with previous spending increases, the lower growth rate was due to a slowdown in the case-mix increases that have occurred since 2006 (discussed on p. 168).

Another factor in the slowing of spending growth is the decline in the number of FFS enrollees as more beneficiaries have enrolled in Medicare Advantage (MA) plans. MA spending on SNFs is not included in the spending totals.⁴ Growth in SNF spending per FFS enrollee is projected to outpace growth in overall spending in 2008. Between 2007 and 2008, spending per FFS enrollee increased 4 percent (from \$636 to \$661), or 0.6 percentage point higher than the growth in overall SNF

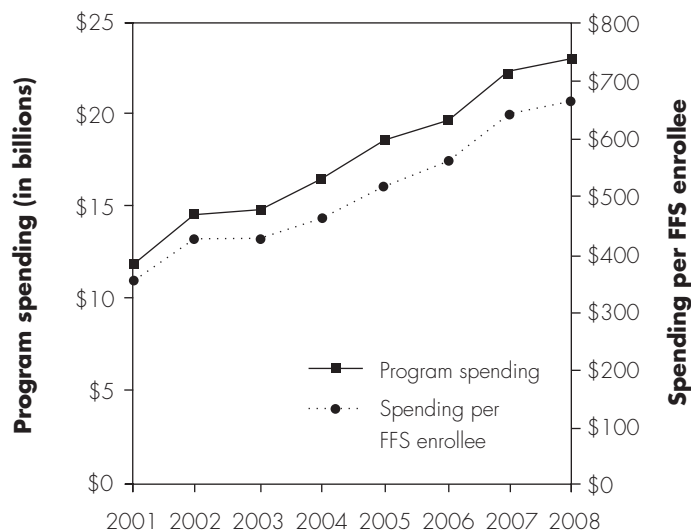
**TABLE
2D-1**

Ten most common diagnoses accounted for more than a third of SNF Medicare admissions in 2006

DRG code from hospital stay	DRG	Share of SNF admissions
544	Major joint and limb reattachment of lower extremity	6.9%
127	Heart failure and shock	4.8
089	Simple pneumonia and pleurisy, age >17, with CC	4.5
210	Hip and femur procedures except major joint, age >17, with CC	3.7
014	Intracranial hemorrhage and stroke with infarction	3.3
320	Kidney and urinary tract infection, age > 17, with CC	3.3
416	Septicemia, age >17	2.9
316	Renal failure	2.5
296	Nutritional and miscellaneous metabolic disorders, age > 17, with CC	2.3
079	Respiratory infections and inflammations, age > 17, with CC	2.3
	Total	36.5

Note: SNF (skilled nursing facility), DRG (diagnosis related group), CC (complication or comorbidity). The DRG code from the hospital stay is the discharge diagnosis.

Source: MedPAC analysis of DataPRO file from CMS, 2006.

**FIGURE
2D-1****Medicare's payments to skilled
nursing facilities continue to grow**

Note: FFS (fee-for-service). Years are fiscal years. The 2008 spending is projected.

Source: CMS, Office of the Actuary, 2008.

spending. While a decline in FFS enrollees explains some of the spending slowdown, it is not the driving factor.

Mechanics of Medicare payments for SNF services

Under a prospective payment system (PPS), Medicare pays SNFs to cover the per day costs of nursing, ancillary services, and capital.⁵ The base rates are updated annually for inflation based on the projected increase in the SNF market basket index, a measure of the national average price for the goods and services SNFs purchase to provide care.⁶ Each daily payment has three components that are summed:

- a nursing component intended to reflect the intensity of nursing care and nontherapy ancillary (NTA) services that patients are expected to require;
- a therapy component to reflect the physical and occupational therapy and speech–language pathology services provided or expected to be provided; and
- a component to cover room and board, administrative, and other capital-related costs.

Information gathered from the standardized patient assessment instrument—the Minimum Data Set (MDS)—is used to classify patients into 53 resource utilization groups (RUGs).⁷ RUGs differ by the services furnished to a patient (e.g., the amount and type of therapy furnished and the use of specialized feeding), patient characteristics (e.g., pneumonia or dehydration), a patient's need for assistance to perform activities of daily living (e.g., eating or toileting), and in some cases the signs of depression. The nursing and therapy components of each RUG have case-mix weights that adjust the daily payments up or down from the base rate; the other component is a uniform amount per day for all case-mix groups.

The nursing and therapy weights have not been recalibrated with new data since the SNF PPS was first implemented in 1998. CMS is in the process of analyzing recently collected data on staff time and other resources used to provide care from a sample of freestanding and hospital-based facilities that treat Medicare and Medicaid patients. The agency plans to incorporate at least some of the findings into the SNF PPS proposed rule expected to be issued in spring 2009.

The Commission has discussed two key problems with the SNF PPS (MedPAC 2008a, MedPAC 2008b, MedPAC 2007a, MedPAC 2007b, MedPAC 2006). First, the RUG classification system does not adequately adjust payments to reflect the variation in providers' costs for NTA services (e.g., respiratory therapy and medications, which make up an average 16 percent of daily costs).⁸ As a result, payments are too low for many beneficiaries who use these services and too high for those who do not. Hospital discharge planners and hospital administrators have reported problems placing patients who need intravenous antibiotics, expensive drugs, or ventilator care into SNFs (Liu and Jones 2007, OIG 2006).

The second key problem with the PPS is that payments vary with the amount of therapy delivered, creating a financial incentive to furnish therapy services. Facilities are paid for providing therapy even when a patient's need for and benefit from it has not been demonstrated.⁹ Over time, the number of beneficiaries receiving therapy and the amount they receive have increased (MedPAC 2008a). In 2001, 77 percent of days were classified into rehabilitation RUGs; by 2007, this share had risen to 88 percent. Days grouped into the most intensive rehabilitation RUGs (the ultra high and very high groups) grew from 32 percent in 2001 to 60 percent in 2007. For days grouped into

**TABLE
2D-2**

A growing share of Medicare stays and payments go to freestanding SNFs and for-profit SNFs

Type of SNF	Facilities		Medicare-covered stays		Medicare payments	
	2005	2007	2005	2007	2005	2007
Freestanding	92%	93%	87%	90%	93%	95%
Hospital based	8	7	13	10	7	5
Urban	67	67	79	79	81	81
Rural	33	33	21	21	19	19
For profit	68	68	66	68	72	74
Nonprofit	28	27	30	28	25	23
Government	5	5	4	4	3	3

Note: SNF (skilled nursing facility). Totals may not sum to 100 percent due to rounding.

Source: MedPAC analysis of the Provider of Services and Medicare Provider Analysis and Review files.

rehabilitation case-mix groups (those patients receiving at least 45 minutes of therapy a week), the therapy payment comprises between 16 percent and 60 percent of the total daily payments, depending on the RUG.

In our June 2008 report, the Commission recommended that the PPS be redesigned to establish separate payments for NTA services, base its payments for therapy services on a patient’s predicted care needs (not on the services the facility provides), and adopt an outlier policy (MedPAC 2008b). We showed that a revised PPS would better target payments for NTA services, more accurately calibrate therapy payments to therapy costs, and offer modest financial protection for patients with high ancillary costs and the SNFs treating them. Later in the chapter (p. 177), we describe two additional refinements to the proposed design that consider accounting for a long outlier stay’s declining costs and countering incentives under prospective payment for facilities to underprovide services.

Providers of SNF care

SNF services may be furnished by hospital-based or freestanding facilities. In 2007, 93 percent of facilities were freestanding. A growing share of Medicare-covered stays and payments went to freestanding SNFs and for-profit SNFs (Table 2D-2). Freestanding facilities treated 90 percent of Medicare stays (up 3 percentage points since 2005) and accounted for an even larger share of spending. For-profit SNFs’ shares of Medicare-covered stays and payments each increased 2 percentage points between 2005 and 2007.

Most SNFs (90 percent) are parts of nursing homes that also care for long-stay patients, which Medicare does not cover. Within SNFs, Medicare-covered SNF patients are typically a small share of the SNF’s total patient population. At the median, Medicare-covered SNF days in 2007 made up just over 12 percent of total patient days in freestanding facilities; only 1 in 10 freestanding SNFs had 29 percent or more total patient days that were covered by Medicare. In contrast, the median share of Medicare-covered days in hospital-based facilities, which treat few long-term care residents, was 62 percent and 1 in 10 hospital-based SNFs had 91 percent or more total patient days that were covered by Medicare.¹⁰

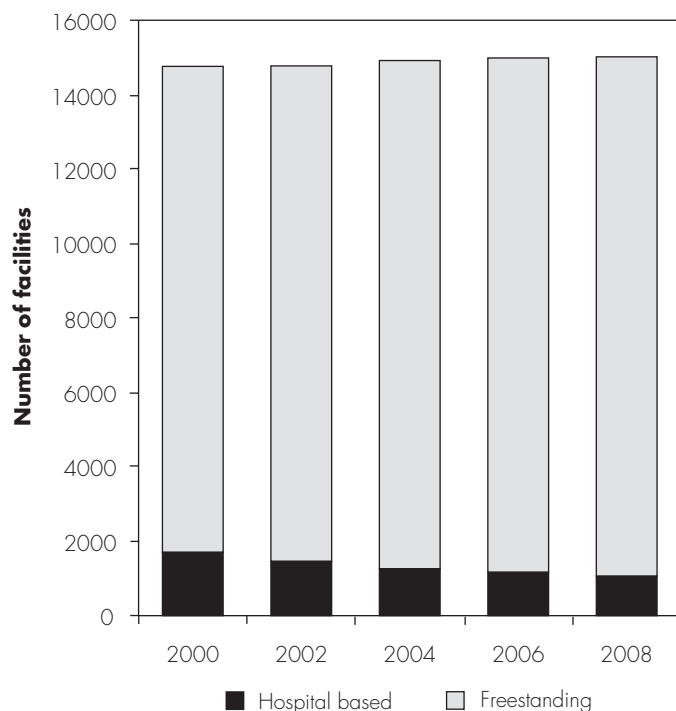
Are Medicare payments adequate in 2009 and how should they change in 2010?

Indicators of payment adequacy are generally positive for SNFs. To make this assessment, we analyzed the supply of providers, beneficiary access to care, volume of services, quality of care, provider access to capital, Medicare payments in relation to costs to treat Medicare beneficiaries, and changes in payments and costs. As required by statute, we based our update assessments on the performance of efficient providers.

Generally, beneficiaries have good access to services, although those who need specific services may experience

**FIGURE
2D-2**

The number of Medicare-certified skilled nursing facilities has remained stable, with a declining share of hospital-based providers



Note: Counts do not include swing beds.

Source: MedPAC analysis of data from the Certification and Survey Provider Enhanced Reporting on CMS's Survey and Certification Providing Data Quickly system for 2000–2008.

delays while awaiting placement in a SNF. The number of SNFs has remained about the same for several years, but the number of SNFs willing or able to treat beneficiaries classified into the clinically complex and special service case-mix groups has declined, further concentrating where these patients are admitted. The refinements the Commission recommended in June 2008 would help correct the payment inaccuracies that can result in patient selection. Volume—as measured by SNF days per 1,000 FFS enrollees—increased between 2006 and 2007, while admissions remained the same. For the third year in a row, the two quality measures that the Commission analyzes show mixed results: Risk-adjusted rates of discharge to the community increased (indicating improved quality), while rates of potentially avoidable rehospitalizations increased (indicating poorer quality). As with all health care sectors, SNFs' access to capital was poor in the second half of 2008, reflecting turmoil in the financial markets rather

than the adequacy of Medicare payments. All signs indicate that Medicare continues to be a preferred payer. Medicare margins increased from 2006 and exceeded 10 percent for the seventh year in a row.

Supply of providers has remained stable

Since 2000, the number of SNFs participating in the Medicare program has remained relatively stable at about 15,000 facilities (Figure 2D-2). Between 2007 and 2008, more than 100 facilities began participating in Medicare and about as many terminated so that, on balance, there were 5 fewer SNFs than in 2007.¹¹ Although 10 hospital-based units began participating in the Medicare program during 2008, more units stopped, and the number of hospital-based units declined during the year. Across all SNFs, less than 1 percent stopped participating and most of them were voluntary (e.g., due to a closure or merger).

State policies play a large role in the ability of this sector to expand. Certificate-of-need programs regulate the expansion of long-term care facilities in more than half the states. Two-thirds of the SNFs that started participating in the Medicare program were located in states without certificate-of-need programs for these services. The perceived adequacy of a state's Medicaid payment rates—the dominant payer in most facilities—is also a key factor in a facility's decision to enter or expand in this sector.

Slight increase in use of SNF services though fewer SNFs treat medically complex patients

The number of beneficiaries who used SNF services increased slightly between 2006 and 2007 (0.1 percent). Most Medicare beneficiaries appear to experience little or no delay in accessing SNF services, especially if they need rehabilitation services. Many SNFs have shifted their mix toward patients requiring rehabilitation care.

While access is generally good, placement of some patients who need complex care can be difficult and can result in longer hospital stays as discharge planners seek willing or able SNF providers to take them. Interviews with hospitals in spring 2007 indicated that medically complex patients could be hard to place because many (especially freestanding) SNFs are not staffed with the requisite nursing or respiratory specialists such patients need, or the patients require intensive intravenous antibiotics (Liu and Jones 2007). Patients who are difficult to place include patients with semipermanent or mainline access (for drug administration), patients with tracheostomies that require suctioning, ventilator-dependent patients who are not candidates for weaning,

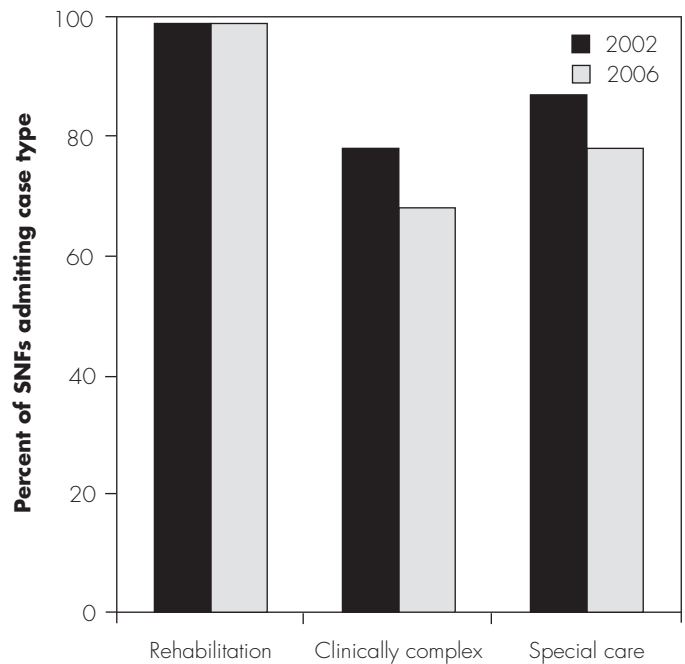
patients with wound vacuum-assisted closures, patients with psychiatric and behavioral problems, and bariatric patients who require special equipment (e.g., oversized beds, wheelchairs, and lifts). Some hospital administrators said that placement of these patients could improve if the SNF PPS were revised to more accurately pay for their care needs.

In 2006, fewer SNFs admitted patients classified into the special care and clinically complex RUGs (grouped together and referred to as medically complex patients) than rehabilitation patients, and the share has declined over time.¹² The Commission found that only 68 percent of SNFs admitted clinically complex patients (based on the admitting RUG assignment) and 78 percent admitted special care patients, compared with 99 percent of SNFs that admitted rehabilitation patients (Figure 2D-3). Between 2002 and 2006, the number of facilities admitting special care and clinically complex patients decreased (almost 9 percent and 12 percent, respectively), even though the number of SNFs remained about the same. As a result, the distributions of medically complex admissions were more concentrated in fewer SNFs than rehabilitation admissions.¹³

With fewer SNFs treating them, medically complex admissions were more concentrated in 2006 than in 2002. In 2002, SNFs with the highest shares of clinically complex cases (the top 25th percentile in terms of share of admissions) admitted 53 percent of these cases; by 2006, this share had grown to 59 percent. Similarly, in 2002, SNFs with the highest shares of special care cases admitted 49 percent of these cases; by 2006, this share had grown to 56 percent. In contrast, SNFs with the highest shares of rehabilitation admissions admitted a smaller share of these cases in 2006 than in 2002. With fewer SNFs willing or able to treat medically complex patients, more of these patients could experience delays in placement. By better targeting payments for NTA services, the Commission's recommended revisions to the SNF PPS would raise payments for patients grouped into the extensive service RUGs (e.g., patients who received intravenous medications or ventilator care), special care patients (e.g., patients treated for surgical wounds or skin ulcers), and clinically complex patients (e.g., patients who had pneumonia or received dialysis services). With a better match between payments and costs for all types of patients, SNFs would have less incentive to selectively admit certain types of patients over others and fewer medically complex patients would experience delays in their placements.

FIGURE 2D-3

The share of SNFs that admitted clinically complex and special care cases decreased between 2002 and 2006



Note: SNF (skilled nursing facility). Admission category based on admitting case-mix group assignment. The clinically complex category includes patients who are comatose; have burns, septicemia, pneumonia, internal bleeding, or dehydration; or receive dialysis or chemotherapy. The special care category includes patients with multiple sclerosis or cerebral palsy, those who receive respiratory services seven days per week, or those who are aphasic or tube fed.

Source: MedPAC analysis of 2006 DataPro data from CMS.

Volume of services rose slightly and therapy provision continued to intensify

On a per FFS enrollee basis, SNF volume increased slightly between 2006 and 2007 (Table 2D-3, p. 168). Covered days rose 1.7 percent and admissions remained unchanged, resulting in a small increase in covered days per admission. We report these measures on a per FFS enrollee basis because the counts of days and admissions do not include the utilization of beneficiaries enrolled in MA plans. Because MA enrollment continues to increase, changes in utilization could reflect a smaller pool of users rather than changes in service use by the beneficiaries captured by the data.

**TABLE
2D-3**

Small increase in SNF days resulted in longer average stays

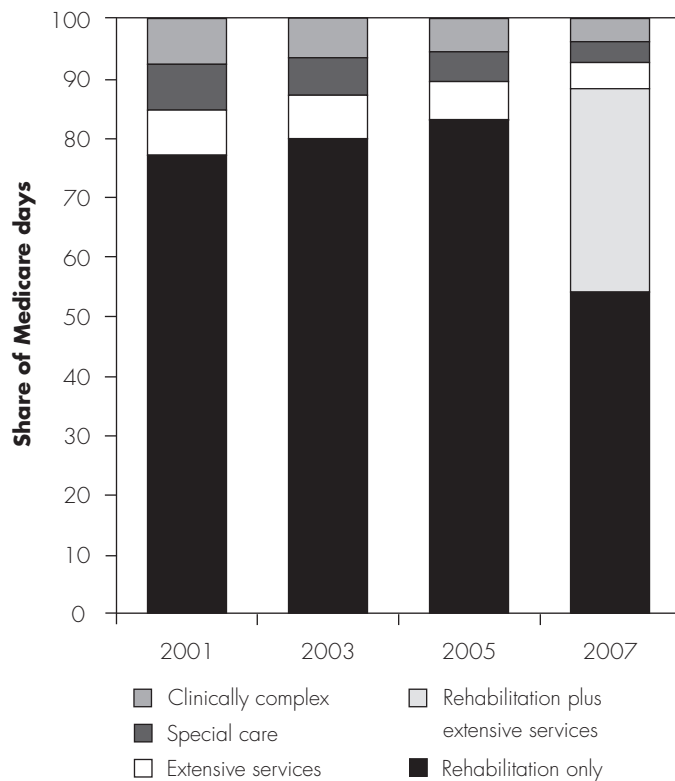
	2005	2006	2007	Percent change 2006-2007
Volume per 1,000 fee-for-service enrollees				
Covered admissions	70	72	72	0.0%
Covered days	1,817	1,892	1,925	1.7
Covered days per admission	26.0	26.3	26.7	1.5

Note: SNF (skilled nursing facility). Data include 50 states and the District of Columbia. Data for 2007 are preliminary.

Source: Calendar year data from CMS, Office of Research, Development, and Information.

**FIGURE
2D-4**

Case mix in freestanding SNFs shifted toward rehabilitation plus extensive services RUGs and away from other broad RUG categories



Note: SNF (skilled nursing facility), RUG (resource utilization group). The clinically complex category includes patients who are comatose; have burns, septicemia, pneumonia, internal bleeding, or dehydration; or receive dialysis or chemotherapy. The special care category includes patients with multiple sclerosis or cerebral palsy, those who receive respiratory services seven days per week, or those who are aphasic or tube fed. The extensive services category includes patients who have received intravenous medications or suctioning in the past 14 days, have required a ventilator or respiratory or tracheostomy care, or have received intravenous feeding within the past 7 days. Days are for freestanding skilled nursing facilities with valid cost report data.

Source: MedPAC analysis of freestanding SNF cost reports.

Growth in the number and intensity of rehabilitation days

Rehabilitation days continued to grow as a share of all Medicare days. In 2007, rehabilitation days accounted for 88 percent of Medicare days, up 5 percentage points from 2005 (Figure 2D-4). In January 2006, CMS implemented nine new rehabilitation case-mix groups for patients who qualify for both rehabilitation and extensive services, adding them at the top of the classification hierarchy and assigning them the highest payments.¹⁴ In 2007, these new RUG categories accounted for 34 percent of days, while days classified into the rehabilitation-only RUGs declined between 2005 and 2007, from 83 percent to 54 percent.¹⁵

Some of the growth in total rehabilitation days may be explained by a shift in the site of care from inpatient rehabilitation facilities (IRFs) to SNFs, as IRFs comply with the 75 percent rule for IRFs.¹⁶ Between 2004 and 2007, the share of beneficiaries who had a major joint replacement or revision and were discharged from a hospital to a SNF increased 3 percentage points (from 33 percent to 36 percent), while the share discharged to an IRF declined 12 percentage points (from 28 percent to 16 percent).¹⁷

As we have reported in previous years, the distribution of rehabilitation days continued to shift toward the highest paying therapy groups (Figure 2D-5). Between 2006 and 2007, the number of ultra high rehabilitation days increased 30 percent, making up just under one-third of all rehabilitation days in 2007. During this period, the share of days in the very high, high, and low rehabilitation groups declined.

The share of medium rehabilitation days increased between 2006 and 2007, suggesting that the mix of

rehabilitation days is sensitive to payment rates. After implementation of the new case-mix groups in 2006, the payment rates for the medium rehabilitation plus extensive service groups were set higher than the rates for high rehabilitation plus extensive services case-mix groups.¹⁸ Between 2006 and 2007, the volume of all medium days increased almost 5 percent, while the volume of all high days declined by 21 percent.

Growth in the rehabilitation plus extensive services days

Between 2006 and 2007, rehabilitation plus extensive services days increased more than 33 percent, while rehabilitation-only days declined almost 9 percent. The large number of days classified into the rehabilitation plus extensive services case-mix groups may reflect providers' coding improvements to record extensive services provided by the SNF or during the previous hospital stay. The MDS requires SNFs to report extensive services (e.g., NTA services) provided during a look-back period of 14 days, which can cover days during the prior hospitalization. Days early in a SNF stay can be classified into the highest paying case-mix groups based solely on services furnished during the preceding hospital stay. For these days, SNFs receive higher payments associated with the rehabilitation plus extensive services case-mix groups without incurring the cost of providing the extensive service.

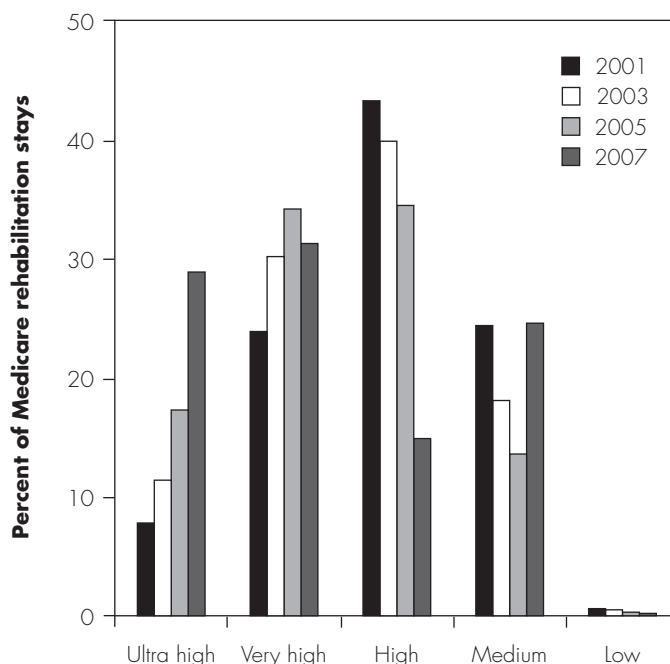
It is possible that patients who received extensive services during their hospitalization may continue to be more costly to treat in a SNF than other patients. CMS recently gathered staff time and service use data from nursing homes that allow them to compare the resources used by patients who did and did not receive extensive services during their hospital and SNF stays. CMS plans to evaluate this information and, based on its finding, make appropriate modifications to the SNF PPS. The Commission has recommended that CMS routinely gather the information required to distinguish between services furnished by the SNF and the hospital. This delineation will prevent Medicare from paying twice for the same service—once in the hospital and again in the SNF (MedPAC 2008a).

Providers of high-intensity therapy varied by facility type and ownership

The facilities with high and low shares of the most intensive rehabilitation days (defined as ultra high and very high rehabilitation RUG days) varied considerably by facility type and ownership. Freestanding SNFs and

FIGURE 2D-5

Rehabilitation case mix in freestanding SNFs continues to shift toward higher paying rehabilitation RUGs



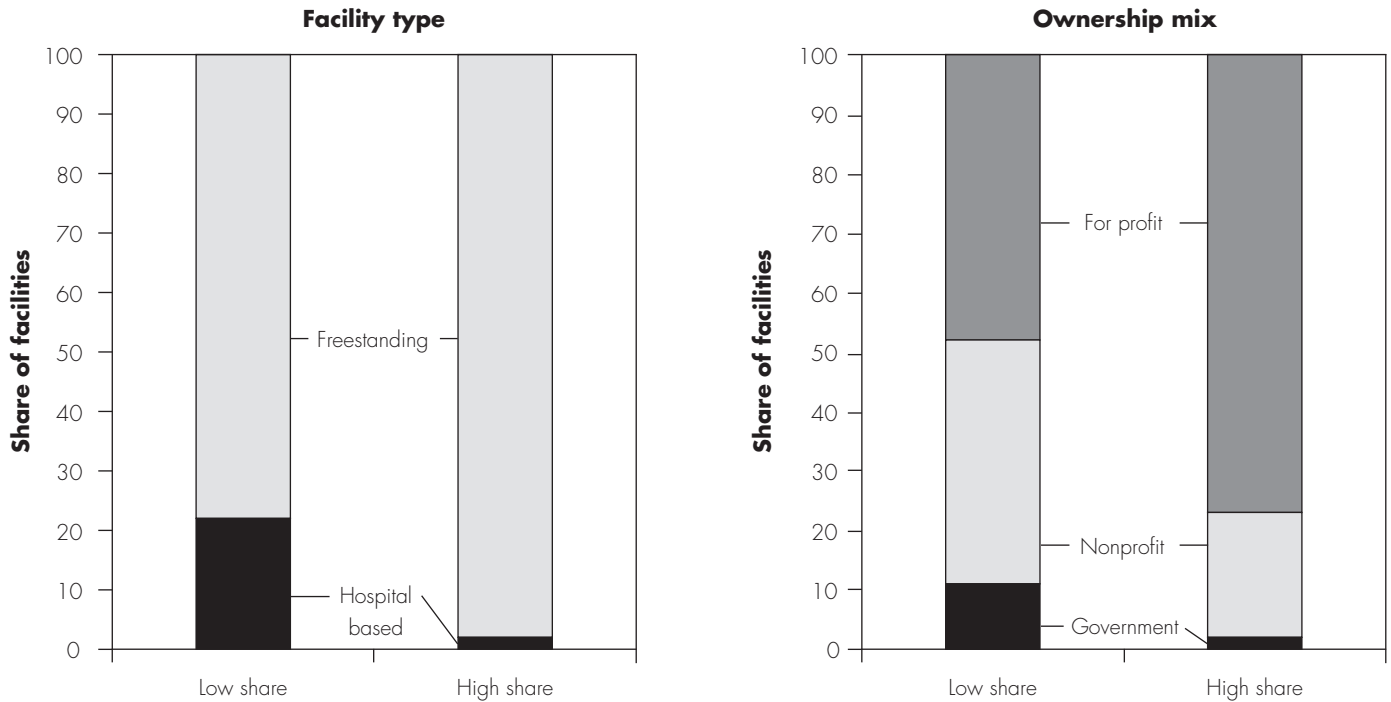
Note: SNF (skilled nursing facility), RUGs (resource utilization groups). Rehabilitation days include days in the rehabilitation case-mix groups and the rehabilitation plus extensive services case-mix groups. Days are for freestanding skilled nursing facilities with valid cost report data.

Source: MedPAC analysis of freestanding SNF cost reports.

for-profit SNFs were underrepresented among facilities with low shares (defined as SNFs in the bottom 25th percentile of shares) of the most intense rehabilitation days (those in the ultra high and very high case-mix groups) and, to differing degrees, were overrepresented among facilities with high shares (defined as SNFs in the top 25th percentile of shares) of these days (Figure 2D-6, p. 170).¹⁹ For example, freestanding SNFs made up 78 percent of facilities with low shares of the most intensive rehabilitation days even though they make up a much larger share of facilities and stays (93 percent and 90 percent, respectively). Their proportion of the facilities with high shares of the most intense rehabilitation days was slightly above their proportion of facilities or stays. Hospital-based facilities were relatively overrepresented among facilities with low shares of the most intense rehabilitation days and underrepresented among facilities with high shares. Turning to ownership, for-profit facilities

**FIGURE
2D-6**

SNFs with low and high shares of the most intensive rehabilitation days differ by type and ownership



Note: SNF (skilled nursing facility). Intensive rehabilitation is defined as days in the ultra high and very high rehabilitation resource utilization groups (RUGs). Low share is defined as SNFs in the bottom 25th percentile of shares of rehabilitation days in the intensive rehabilitation RUGs. High share is defined as the SNFs in the top 25th percentile of shares of rehabilitation days in the intensive rehabilitation RUGs.

Source: MedPAC analysis of 2006 DataPro and Provider of Service files from CMS.

made up a larger proportion of the SNFs with high shares of the most intense rehabilitation days (77 percent) and a smaller share of facilities with low shares (48 percent) than of facilities and stays (68 percent).

Given the payment incentive to furnish therapy services, some publicly traded nursing home companies report strategies to grow their Medicare revenues by increasing their focus on rehabilitation patients and, within them, on the rehabilitation plus extensive services patients (Extencicare 2007, Kindred 2007, Sun Healthcare Group 2008). To shift patient mix, some SNFs developed specialized units for short-stay, post-acute patients recovering from joint replacement, cardiac, and respiratory ailments. They have also implemented specific strategies to handle a more intensive rehabilitation case mix, including different staffing levels, the selective use of nurse practitioners, and clinical case managers as ways to extend physician oversight of patients; one company added a therapist recruitment and retention program. Companies

also report expanded marketing strategies to target short-term rehabilitation patients. We do not have data to compare the patient outcomes and costs of specialized units with those of traditional SNFs.

Patient condition at admission unlikely to explain growth in therapy provision

During this period of rapid growth in the provision of rehabilitation therapy, patients admitted to SNFs were slightly more impaired but not so much as to fully account for the large increases. Assessments conducted at or near admission (on or about day five of the stay) indicate that the share of patients requiring extensive assistance or who were considered totally dependent to transfer or walk increased from 51 percent to 60 percent between 2002 and 2006. At the same time, there were minimal reductions in patients' ability to conduct activities of daily living at admission (as measured by the Barthel score) and in their cognitive function.²⁰ Over three of these years (2004 through 2006), the average patient risk score

(the hierarchical coexisting condition) increased a small amount (2 percent), indicating that these patients were likely to be slightly more costly to treat. Yet, between 2002 and 2006, rehabilitation days grew 42 percent, while admissions grew at only one-third of this rate (14 percent). Because patient assessments are not required at discharge, we do not know whether, or by how much, patients benefited from the rehabilitation therapy they received.

Service use trends highlight need to make changes to PPS

These trends in SNF service use—the concentration of special care and clinically complex admissions in fewer SNFs, the growing share and intensity of rehabilitation days, and the shift of days into the rehabilitation plus extensive services—underscore recommendations previously made by the Commission. First, the SNF PPS needs to be revised to provide more targeted payments for NTA services and so that financial considerations do not drive service provision. In June 2008, the Commission recommended that the PPS pay for therapy services based on patient care needs, not on the services furnished, and that it include separate payments for NTA services (MedPAC 2008b). We noted that these changes would redistribute payments across different types of cases and the SNFs that treat them (see discussion on p. 175). In aggregate, payments would increase to SNFs treating large shares of patients with extensive service and special care needs and low shares of patients who require only rehabilitation services. By more closely matching payments to costs, SNFs would have less financial incentive to select certain types of patients over others and to furnish therapy services for financial gain.

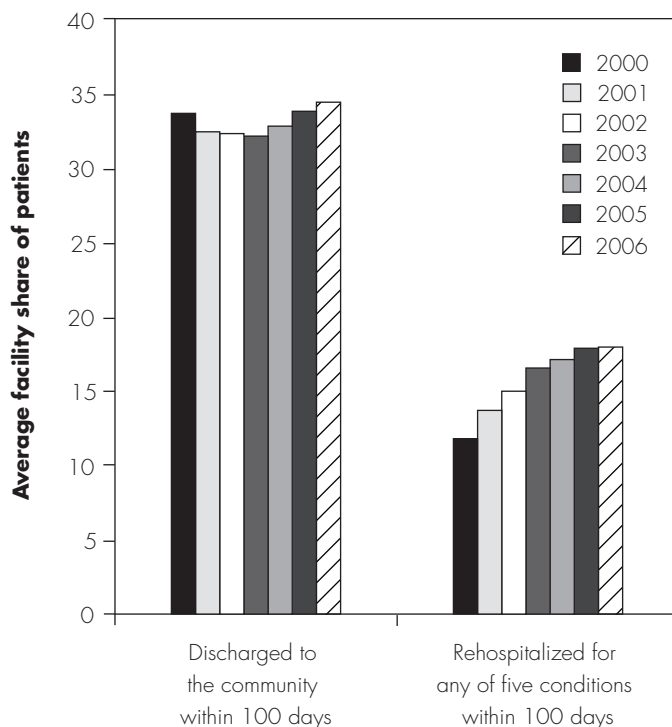
Second, the Commission recommended that the Secretary require SNFs to separately report information about services delivered to patients after admission. This action would enable CMS to distinguish between services furnished by the SNF from those provided during the prior hospital stay.

SNFs show mixed performance in the quality of care provided

Risk-adjusted measures of the quality of care furnished to patients during a Medicare-covered SNF stay show mixed performance regarding quality of care.²¹ In 2006, the rates at which SNFs discharged patients to the community within 100 days were the highest they had been since 2000, indicating improved quality. The mean risk-adjusted rate of community discharge declined between 2000 and 2003 and

FIGURE 2D-7

Mixed quality results for SNFs between 2000 and 2006



Note: SNF (skilled nursing facility). The five conditions include congestive heart failure, respiratory infection, urinary tract infection, sepsis, and electrolyte imbalance. Increases in rates of discharge to community indicate improved quality; increases in rehospitalization rates for the five conditions indicate worsening quality. Rates are calculated for all facilities with more than 25 stays.

Source: Analysis of DataPro data conducted by University of Colorado Health Sciences Center for MedPAC.

has slowly increased since then. In 2006, the most recent year available, it was 34.4 percent (Figure 2D-7).

In contrast, the risk-adjusted rates of potentially avoidable rehospitalization within 100 days for five conditions (congestive heart failure, respiratory infection, urinary tract infection, sepsis, and electrolyte imbalance) have steadily increased throughout the period, indicating worsening quality. Although the rate increase between 2005 and 2006 was the smallest since 2000, the measure continued to worsen slightly. In 2006, the mean risk-adjusted facility rate for those five potentially avoidable rehospitalizations was 18.0 percent, compared with 11.8 percent in 2000.

Because of serious limitations with measures currently reported on CMS's Nursing Home Compare website, we used rates of community discharge and potentially

avoidable rehospitalization to assess the quality of care provided by SNFs to short-stay patients (MedPAC 2008a).²² The discharge and rehospitalization measures target two important goals for SNF patients. Recovering prior function and being discharged to the community are fundamental goals of a patient's SNF stay, particularly for patients receiving rehabilitation therapy. Avoiding rehospitalization is also important, particularly for patients recovering from prior medical or surgical problems that prompted their SNF stay.

Risk-adjusted results for the two quality measures continue to differ by facility type and ownership. Hospital-based facilities performed comparatively well, with community discharge rates more than 14 percentage points higher and potentially avoidable rehospitalization rates more than 4 percentage points lower than those for freestanding facilities, after controlling for differences in case mix, ownership, and location. Hospital-based SNFs may have lower rehospitalization rates in part because they have higher staffing levels and skill mix, and their proximity to the hospital facilitates physician visits. The performance of for-profit facilities was mixed, with higher community discharge rates (0.8 percentage point) but also higher potentially avoidable rehospitalization rates (1.4 percentage points) compared with nonprofit SNFs. The slightly higher community discharge rates achieved by for-profit facilities may reflect their larger shares of high-intensity rehabilitation days compared with nonprofit facilities. Unmeasured differences in case mix and other factors that were not accounted for (e.g., staffing turnover and experience and facility practice patterns) could also explain some of the differences in quality measures by facility type and ownership.

In work examining the quality of care in nursing homes, the Office of Inspector General (OIG) found that almost 74 percent of nursing homes surveyed in 2007 were cited for deficiencies in quality of care—a 3 percentage point increase since 2005 (OIG 2008).²³ The share of homes cited for substandard quality of care (one or more deficiencies at the more serious scope and severity levels within certain categories) was small (3.6 percent) but had also increased over the study period. The deficiencies at the majority of nursing homes cited for actual harm deficiencies were considered to be isolated rather than widespread or exhibiting a pattern. The OIG noted that deficiency rates were affected by increased enforcement, additional guidance and training, and variations in survey practices.

Credit market turmoil has limited access to capital

In reaction to the credit market turmoil, there has been considerable pulling back of lending to nursing homes in the last quarter of 2008, as lenders themselves cannot access capital.²⁴ This slowdown is not a reflection of the adequacy of Medicare payments—the program continues to be a highly valued payer. In fact, Medicare share is one indicator lenders use to gauge the creditworthiness of a potential borrower.

In mid-2008, there were more than a dozen national lenders to nursing facilities, but this count fell to a small handful by late 2008 (Pomeranz 2008). Analysts with whom we spoke said that lending for large projects was at a standstill while the financial markets stabilize. One analyst told us that bonds for nursing homes have not been issued in months. With many nursing homes highly dependent on Medicaid revenues, lenders are also hesitant because the slowdown in the housing market has lowered state revenues that may, in turn, result in frozen or lower Medicaid payment rates.

Even before the crisis in the financial markets in 2008, lending to nursing homes had slowed. Last year, we reported that investment had slowed since August 2007, reflecting general lending conditions and real estate trends, not the adequacy of Medicare's payments. The number of publicly announced mergers and acquisitions of long-term care providers (nursing homes and assisted living facilities) declined 13 percent between 2006 and 2007, with the value of these deals taking a larger drop (Irvin Levin Associates 2008). In early 2008, several deals that began the previous year closed, but by midyear the number of mergers and acquisitions was down. Lending by the Department of Housing and Urban Development (HUD) for federally insured mortgages for nursing homes under Section 232/222 was also down in 2007 from 2006, financing fewer and smaller projects.²⁵ Although the number of financed new beds or units that HUD financed declined 18 percent from 2006, HUD dollars declined a smaller 8 percent (HUD 2008b). In 2007, the average price paid per nursing home bed continued to rise, reflecting the sector's steady cash and growth potential (Irvin Levin Associates 2008, Irvin Levin Associates 2007).²⁶ However, by late 2008 analysts thought the values had remained the same or declined.

Analysts with whom we spoke noted that while lending from large lenders was virtually frozen in late 2008, small and regional lenders were still financing small-scale

Medicaid payment effects on nursing facility margins

The Commission considers the Medicare margin to guide its update recommendation for skilled nursing facilities (SNFs) because our primary responsibility is to advise the Congress on Medicare payment policy. Because it focuses on the comparison of Medicare's payments with the costs to treat beneficiaries, the Medicare margin is an appropriate measure of the adequacy of the program's payments. A total margin reflects the financial performance of the entire facility across all lines of business (e.g., ancillary and therapy services, hospice, and home health care) and all payers.

Industry representatives contend that Medicare payments should cross-subsidize payments from other payers, in large part Medicaid. However, such cross-subsidization is not advisable for several reasons. First, a cross-subsidization policy would use a minority share of Medicare payments to underwrite a majority share of states' Medicaid payments. On average, Medicare payments account for less than a quarter of revenues

to freestanding SNFs. Second, raising Medicare rates to supplement low Medicaid payments would result in poorly targeted subsidies. Facilities with high shares of Medicare payments—presumably the facilities that need revenues the least—would receive the most in subsidies from the higher Medicare payments, while facilities with low Medicare shares—presumably the facilities with the greatest need—would receive the smallest subsidies. Third, increased Medicare payments could encourage states to further reduce their Medicaid payments and, in turn, create pressure to raise Medicare rates still higher. In addition, a Medicare subsidy would have an uneven impact on payments, given the variation across states in the level and method of paying for nursing home care. In states where Medicaid payments were adequate, the subsidy would have no positive impact. Last, a higher Medicare rate could further encourage providers to select patients based on payer source or to rehospitalize dual-eligible patients so that they qualified for a Medicare-covered, higher payment stay. ■

projects (under \$10 million). Currently, capital is more expensive than before and the terms and conditions are more restrictive.²⁷ Federally insured loans continue to be an option, especially for single providers and small multi-facility entities. Lenders look more favorably on facilities with a “good” payer mix (relatively high Medicare and private shares), high rehabilitation mix, high occupancy rates, good performance on quality measures, and those with whom the lender has a prior banking relationship. Although Medicare payments make up a small share of most nursing homes' revenues, the program's relatively generous payments are key to how attractive a nursing home is to investors (see text box on Medicaid payment effects on nursing facility margins). Entities that own facilities in multiple states are viewed favorably as a way to spread financial risk.

Experts do not expect the availability of capital to improve dramatically in 2009. Analysts predicted a continued divergence between strong and weak institutions based on payer mix, operational effectiveness, size and breadth of services, and steady cash flows that insulate facilities from

adverse market conditions (Fitch Ratings 2008, Pomeranz 2008). Some analysts thought there could be an increase in the number of small operators that partner with financially strong providers, close, or file for bankruptcy protection.

One bright spot in nursing homes' access to capital is HUD's program for its federally insured mortgages. Implemented nationally in July 2008, the “lean” program streamlined and standardized its loan application process, which significantly reduced the time to loan closing—from 220 days to 30 days for simple refinancing and from 300–400 days for capital and reconstruction projects to 60–90 days (HUD 2008a). HUD officials report that, although the projected volume of nursing homes and assisted living facilities was down last year, the number of loan applications in 2008 was up considerably, including applications from larger operators. In the past, their lending had been mostly to single site and small multi-site facilities. HUD estimates that it may have funded about 300 projects in 2008 (up from 191 in 2007), with one investor newsletter noting that HUD is fast becoming a lender of choice (*SeniorCare Investor* 2008).

**TABLE
2D-4****Average Medicare margins for freestanding SNFs remain strong**

	2001	2002	2003	2004	2005	2006	2007
Number of SNFs	10,811	11,026	10,851	11,161	11,196	11,274	11,389
Margin, by type of SNF							
All	17.6%	17.4%	10.8%	13.7%	12.9%	13.3%	14.5%
Urban	17.4	16.8	10.0	13.0	12.4	13.0	14.2
Rural	18.4	20.0	14.1	16.5	15.3	14.5	16.0
For profit	19.9	19.9	13.9	16.6	15.6	16.2	17.5
Nonprofit	10.3	9.1	1.5	4.2	4.4	4.0	4.5
Government*	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Note: SNF (skilled nursing facility), N/A (not available).

* Government-owned providers operate in a different context from other providers, so their margins are not necessarily comparable.

Source: MedPAC analysis of freestanding SNF cost reports.

Medicare margins rose in 2007

Although aggregate Medicare margins for freestanding SNFs have varied some over the past seven years, they have exceeded 10 percent each year (Table 2D-4). In 2007, the aggregate Medicare margin for freestanding SNFs was 14.5 percent. This margin was a slight increase from 2006 (13.3 percent), as aggregate Medicare costs per day during this period grew more slowly than aggregate payments per day (4.7 percent compared with 6.2 percent). The growth in payments reflects the increased share of days in the highest paying rehabilitation RUGs.

Financial performance of freestanding SNFs continued to vary widely. In 2007, the aggregate Medicare margin for for-profit SNFs was 17.5 percent, compared with 4.5 percent for nonprofit facilities. One-half of freestanding SNFs had Medicare margins of 16.1 percent or more, while one-quarter of them had Medicare margins at or below 5.2 percent and one-quarter had Medicare margins of at least 24.8 percent. About 18 percent of the freestanding facilities reported negative Medicare margins. In addition, rural facilities in aggregate continued to have higher Medicare margins than their urban counterparts.

Lower daily costs, rather than higher payments, drove the differences in financial performance between freestanding SNFs with the lowest and highest Medicare margins (those in the bottom and top 25th percentiles of Medicare margins). Low-margin SNFs had case-mix-adjusted costs per day that were 45 percent higher than high-margin

SNFs (\$308 versus \$212) and ancillary costs per day that were one-third higher (Table 2D-5). The low-margin SNFs' higher daily costs are explained partly by their lower average daily census (with poorer economies of scale) and shorter stays (over which to spread their fixed costs) compared with high-margin SNFs. Unmeasured differences in patient mix could also explain some of the cost differences.

On the revenue side, high-margin SNFs had Medicare payments that were 7 percent higher than low-margin SNFs. High-margin SNFs had lower shares of days in the less profitable case-mix groups (the clinically complex and special care groups) and higher shares of days in the rehabilitation plus extensive services groups compared with SNFs in the bottom margin quartile.

Hospital-based facilities continued to have very negative margins (-80 percent), in large part reflecting their higher daily costs and shorter stays (averaging less than half the length of stays in freestanding facilities). Per day costs for hospital-based SNFs were about double those of freestanding facilities. Their higher routine costs were a function of their higher staffing levels, their larger mix of professional staff, and their generally higher wage rates (hospital-based SNFs typically pay SNF staff the same rates as their hospital employees) (MedPAC 2007b). Hospital-based SNFs also have higher NTA costs that may capture unmeasured differences in case mix and in how physicians order tests, select drugs, and use other services when managing SNF care. Finally, hospital-

based SNFs have higher overhead costs than freestanding SNFs. Because hospital-based facilities are small, their administrative costs are spread over fewer patients; furthermore, they carry some overhead from their host hospital. These factors contribute to the higher costs relative to those of freestanding facilities.

The Commission continues to be concerned about the differences in financial performance between hospital-based and freestanding facilities and between for-profit and nonprofit facilities. In June 2008, we reported the impact of a proposed PPS design on payments that would shift payments from therapy stays to medically complex stays and stays with high NTA service costs. We estimated that payments for SNFs with low shares of rehabilitation-only patients would increase 17 percent, while payments to SNFs with high shares of these patients would decline 6 percent. Payments to SNFs with high shares of special care patients, high NTA costs per day, and high ancillary costs per day would increase (7 percent, 23 percent, and 21 percent, respectively). Because of the mix of patients and treatment patterns, payments to hospital-based SNFs and nonprofit SNFs would increase 20 percent and 7 percent, respectively. Payments to freestanding SNFs and for-profit SNFs would decline slightly (-2 percent and -3 percent, respectively), again based on their mix of patients and treatment patterns.

The aggregate total margin for freestanding SNFs in 2007 was 2.4 percent. This margin is considerably lower than the aggregate Medicare margin and reflects the lower Medicaid payments that drive many SNFs' total financial performance. State policies regarding the level of Medicaid payments and the ease of entry into the market play key roles in shaping this industry's overall financial health. In addition, the share of revenues made up from private payers (generally considered favorable) and other lines of business (e.g., ancillary, home health, and hospice services) also contribute to the total financial performance. The Commission has a longstanding position that cross-subsidizing Medicaid payment levels is inadvisable for many reasons and that the Medicare margin is the appropriate measure of the adequacy of the program's payments (see text box on p. 173).

Payments and costs for 2009

To estimate 2009 payments and costs with 2007 data, the Commission considers policy changes that went into effect in 2008 and 2009. There were no policy changes to consider for these years. SNFs received the full market

**TABLE
2D-5**

Freestanding SNFs in top quartile of Medicare margins in 2007 had much lower costs

Characteristic	Top margin quartile	Bottom margin quartile
Case-mix adjusted total costs per day		
Total	\$212	\$308
Ancillary	\$89	\$123
Average daily census (patients)	86	75
Length of stay (in days)	45	38
Medicare payment per day	\$377	\$352
Share of days, by broad case-mix group		
Rehabilitation plus extensive services	30%	27%
Clinically complex and special care	4%	6%
Share of SNFs, by type		
For profit	87%	53%
Urban	66%	71%

Note: SNF (skilled nursing facility). Values shown are medians for the quartile. Top margin quartile SNFs were in the top 25 percent of the distribution of Medicare margins. Bottom margin quartile SNFs were in the bottom 25 percent of the distribution of Medicare margins. Standardized costs have been adjusted for case mix using the facility's nursing case-mix index.

Source: MedPAC analysis of freestanding cost reports.

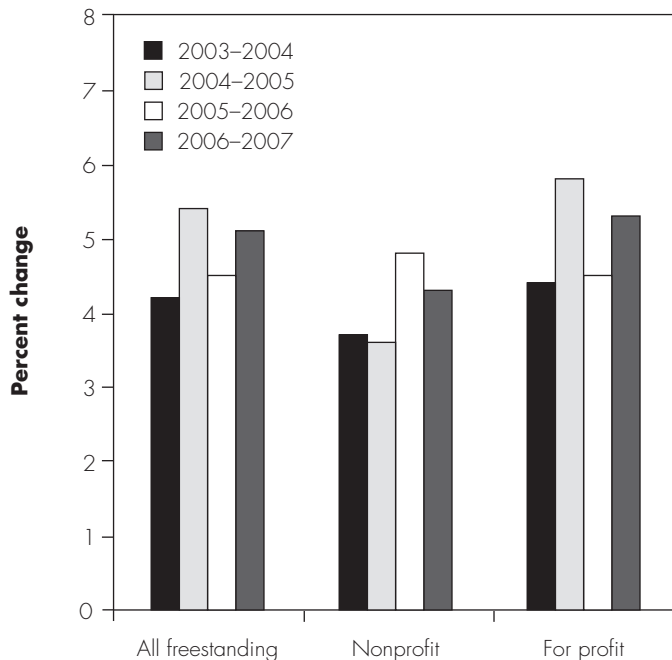
basket updates each year. The SNF market basket, which measures the price inflation for the goods and services SNFs use to produce a day of care, increased Medicare payments by 3.3 percent in 2008 and 3.4 percent in 2009.

Our modeling of future year costs also considered recent cost growth for freestanding SNFs. Between 2006 and 2007, cost per day (unadjusted for case mix) grew faster than it did between 2005 and 2006 (Figure 2D-8, p. 176).²⁸ Although freestanding for-profit facilities experienced higher average cost growth than nonprofits between 2006 and 2007, they continued to have lower per day costs. In 2007, the per day costs at freestanding nonprofit SNFs were about 10 percent higher than the daily costs at for-profit SNFs, which could be due to differences in case mix, staffing levels, and general and administrative expenses.

In assessing payment adequacy, the Commission considers the estimated relationship between Medicare payments and SNF costs in the current fiscal year (2009). We project the SNF margin to be 12.6 percent in 2009. This estimate assumes that costs will increase at the actual average cost growth over the past five years (4.5 percent) and not at the

**FIGURE
2D-8**

**Growth in freestanding
SNF costs per day
varies by ownership**



Note: SNF (skilled nursing facility). Growth is in aggregate costs per day between two years for a cohort of facilities. Costs per day are unadjusted for case mix.

Source: MedPAC analysis of freestanding SNF cost reports.

rate of the market basket, which is lower. We also do not assume any behavioral offset, such as changes in coding that may increase payments.

How should Medicare payments change for 2010?

The update in current law for fiscal year 2010 is the forecasted change in input prices as measured by the SNF market basket. The market basket for SNFs in 2010 is projected to be 2.9 percent but CMS will update this forecast before using it to update payments for 2010.

Update recommendation

RECOMMENDATION 2D

The Congress should eliminate the update to payment rates for skilled nursing facility services for fiscal year 2010.

RATIONALE 2D

The evidence indicates that most Medicare beneficiaries continue to have access to SNF services. Under policies in current law for 2008 and 2009, we project the Medicare margin for freestanding SNFs to be more than 12 percent in 2009. SNF payments appear more than adequate to accommodate cost growth without an update.

IMPLICATIONS 2D

Spending

- This recommendation would lower program spending relative to current law by between \$250 million and \$750 million for fiscal year 2010 and by between \$1 billion and \$5 billion over five years.

Beneficiary and provider

- We do not expect an adverse impact on beneficiary access, nor do we expect the recommendation to affect providers' willingness or ability to care for Medicare beneficiaries.

The Commission considers the update recommendation to be only one tool to help improve the accuracy and equity of the SNF PPS (see text box on previous Commission recommendations). Of particular relevance to the update discussion are two recommendations previously made by the Commission that would redistribute payments across facilities: to revise the PPS and establish a pay-for-performance program (MedPAC 2008a, MedPAC 2008b). Although updates can help control overall spending, fundamental changes to the PPS are required to redistribute payments from therapy care to medically complex care. As previously noted, if the revisions to the PPS were implemented, payments would increase for facilities that treat large shares of patients with high NTA service costs, high ancillary costs, and medically complex care needs. Payments would be lower for facilities that treat high shares of patients who require only rehabilitation services.

The Commission has also recommended that payments be tied to the quality of the care facilities furnish. A quality incentive payment policy would redistribute payments toward facilities that provide good quality (or are improving) and away from facilities with poor quality.

The Commission urges the Congress to implement all three recommendations so that spending increases are limited and payments are distributed equitably across all types of cases and the facilities that treat them.

Previous Commission skilled nursing facility recommendations

Over the past year, the Commission has made several recommendations aimed at improving the accuracy of Medicare's payments, linking the program's payments to beneficiary outcomes, and increasing our ability to assess the value of Medicare's purchases (MedPAC 2008a, MedPAC 2008b).

The Congress should require the Secretary to revise the skilled nursing facility (SNF) prospective payment system (PPS) by:

- adding a separate nontherapy ancillary (NTA) component,
- replacing the therapy component with one that establishes payments based on predicted patient care needs, and
- adopting an outlier policy.

Compared with the existing PPS, the revised design would better target payments to stays with high NTA costs, more accurately calibrate therapy payments to therapy costs, and offer some financial protection to SNFs that treat stays with exceptionally high ancillary costs.

The Congress should establish a quality incentive payment policy for SNFs in Medicare.

Linking payments to beneficiary outcomes could help improve SNF quality and redistribute payments from low-quality to high-quality providers. Measures, such as rehospitalization rates, would encourage providers to improve their coordination of care across sites.

To improve quality measurement for SNFs, the Secretary should:

- add the risk-adjusted rates of potentially avoidable rehospitalizations and community discharge to its publicly reported post-acute care quality measures;
- revise the pain, pressure ulcer, and delirium measures currently reported on CMS's Nursing Home Compare website; and
- require SNFs to conduct patient assessments at admission and discharge.

These changes would improve accuracy of the public reporting of SNF quality and ensure that the measures reflect the care provided to all SNF patients. Gathering assessment information at discharge will allow the program to evaluate changes in patient conditions and tie them to the services furnished to beneficiaries.

The Secretary should direct SNFs to report more accurate diagnostic and service-use information by requiring that:

- claims include detailed diagnosis information and dates of service,
- services furnished since admission to the SNF be recorded separately in the patient assessment, and
- SNFs report their nursing costs in the Medicare cost report.

Better information would improve payment accuracy and enable policymakers to assess the value of SNF care. ■

Revising the PPS

Although Medicare payments for SNF care are more than adequate in aggregate, they continue to be distributed poorly. Without evidence that some categories of SNFs are less efficient than others, the wide variation in Medicare margins by facility type, ownership, and patient mix suggests that current payments are not targeted accurately. In addition, consistent with the payment incentives under current policy, many SNFs have substantially increased the amount of therapy furnished to beneficiaries, although the extent to which it has contributed to improved patient outcomes is unknown. Finally, medically complex and—

under the current payment system—less profitable patients are increasingly concentrated at a smaller number of SNFs able and willing to treat them.

In June 2008, the Commission recommended that the Congress revise the SNF PPS to include:

- separate payments for NTA services,
- an outlier policy for stays with exceptionally high NTA costs, and
- therapy payments based on predicted patient care needs (not on the services the facility provides).

Our analysis demonstrated that a revised PPS would better target payments to stays with high NTA costs, afford some financial protection to SNFs that treat patients with exceptionally high ancillary care needs, and more accurately calibrate payments for therapy costs.

The Commission also noted that two refinements might improve the proposed SNF PPS design. First, an outlier policy that accounts for the declining costs of longer stays would help ensure that providers did not extend stays for financial gain. Second, a policy to help prevent the underprovision of therapy services would counter providers' incentives under any prospectively set payment to lower their costs. Staff, working with researchers at the Urban Institute, evaluated these refinements.

Refining the design of an outlier policy

An outlier policy offers modest financial protection for providers that treat exceptionally costly stays. By design, outlier payments are intended to apply to only a small share of stays. Outlier payments do not go into effect until the cost of a case exceeds the usual payment rate plus a predetermined loss amount (the fixed-loss amount). Consequently, outlier payments cover only a portion of the loss so a provider retains an incentive to be efficient. For each extremely costly case, a provider must cover the entire fixed-loss amount plus the share of the loss beyond the fixed-loss amount not covered by the outlier payment.

The outlier policy we proposed last summer as part of the revised PPS focused on losses attributable to ancillary costs because these costs are highly variable and fluctuate due to differences among patients. The design considered ancillary losses over the entire stay, as providers are at financial risk for the losses incurred over the stay, not on a per day basis. Specifically, we evaluated a policy that would make extra payments only after the ancillary loss for a stay exceeds \$3,000; outlier payments would equal 80 percent of the loss above that amount. The fixed-loss amount of \$3,000 requires SNFs to incur a loss equal to the average ancillary cost per stay. Under this design, we found that outlier payments would be made for fewer than 3 percent of all stays, and they would be broadly distributed across the majority of SNFs. This result is consistent with the narrow purpose of outlier payments and the random nature of extraordinary costs. With outlier payments financed by an equal offsetting reduction in regular prospective payments, about one-fifth of facilities would benefit, on net, from the outlier policy we modeled.

To more accurately reflect the lower daily costs of longer stays, we evaluated a loss-sharing ratio (the percentage of losses paid above the fixed-loss amount) that would decline for days beyond the median length of stay. Losses over the stay would still determine whether a stay qualifies for an outlier payment, but the daily payments would be lower for days beyond the median length of stay. As an example, we modeled a policy that would pay 80 percent of the loss (beyond the fixed-loss amount) for days up to the median length of stay and 60 percent of the loss for days beyond the median length of stay. Because the median lengths of stay are different for hospital-based and freestanding facilities, we compared a stay's length with the median for its facility type.

The effects of the outlier policy with and without the length-of-stay refinement were similar. The same share of stays would receive outlier payments and the same mix of facilities would benefit, on net, from the outlier policy. The distributional impacts on outlier payments would also be similar. However, an outlier policy with a length-of-stay refinement may offer more accurate payment because outlier payments would mirror the lower daily costs of later days of a stay.

Countering the incentive to underprovide therapy service

Under the recommended revisions to the PPS, providers would be paid for the predicted amount of therapy a patient needs, even if they provided fewer services. Like other providers facing prospectively determined payment rates, SNFs would have a financial incentive to underprovide care—in this case, therapy services. To discourage underprovision, the Commission discussed the possibility of devising a policy whereby SNFs would be paid on a cost basis for stays with therapy care that was considerably below predicted levels.²⁹ CMS would identify unusually low utilization over the course of a stay, as therapy may not be provided on any given day for legitimate reasons.

To implement a low utilization payment adjustment (LUPA), CMS would have to make two design decisions. First, would the policy attempt to identify underprovision for individual stays or those facilities with a pattern of underprovision? A case-level LUPA policy would identify individual cases with unusually low therapy utilization and pay for them on a cost basis. A facility-level policy would identify facilities with patterns of low utilization across all patients' stays in one year and discount their payments in a subsequent year. A facility-level LUPA

policy could identify facilities that, across all Medicare stays, consistently furnished less therapy than predicted. A facility-level policy places less demand on the precision of the predictive model for individual stays, which may be appropriate as even good models accurately predict therapy use for only a portion of stays. For example, the Commission's alternative design for therapy payments explained one-third of the variation in therapy costs across stays and facilities.

Second, what level of underprovision would trigger cost-based or discounted payments? For example, would LUPA payments apply to stays in which the amount of therapy provided was less than 10 percent of the predicted amount, less than 20 percent of the predicted amount, or less than 30 percent? CMS would need to consider the accuracy of the therapy payment model in deciding which level to consider "low" utilization. Our preliminary modeling indicates that the share of stays that would be paid at cost would not increase proportionally with higher minimum thresholds. More stays would be identified for cost-based payments if the LUPA payments applied to stays with therapy amounts that were 30 percent of the predicted amounts than if the LUPA payments applied to stays with therapy amounts that were 10 percent of the predicted amount, but not three times as many. Higher thresholds (e.g., stays with actual therapy amounts equal to 20 percent or 30 percent of the predicted amounts) would result in larger program savings, since a larger share of stays would have their therapy payments based on costs rather than on the higher predicted amounts. CMS may also want to consider exempting essentially nontherapy stays from LUPA payments as a way to target the policy to higher use rehabilitation stays. As an example, a LUPA might apply only to those stays with a minimum amount of therapy, such as therapy payments of at least \$250 over the stay.

To implement a LUPA policy, CMS needs to consider whether to measure underprovision using time (therapy minutes) or therapy costs. Both measures have limitations. Minutes are potentially a more accurate measure of service use than costs but may not be recorded accurately or consistently on SNF claims. The units recorded on the claim represent 15-minute blocks of therapy time, not actual minutes, and facilities could vary in how they count these blocks. CMS has not evaluated the accuracy

of these claims data. Facilities also report therapy minutes in patient assessments regarding care furnished in the past seven days. However, this instrument does not capture the total amount of therapy furnished throughout the stay. Cost measures are more readily available but may be inaccurate for some facilities because of the limitations associated with the ratios used to convert charges to costs.³⁰

To assess the feasibility and impact of adding a LUPA policy to the Commission's alternative PPS design, we developed preliminary case-level models using minutes and costs. One model compared actual costs (estimated from charges) with modeled base payments to assess differences between what therapy payments would have been under a revised PPS and the therapy costs for the stay. A second model compared estimated minutes (from patient assessments) with predicted minutes (using predictors from the payment model).³¹ The estimates of the percent of stays that would be paid on a cost basis if a LUPA policy had been in place varied considerably depending on the percentage of predicted amounts that would trigger cost-based payments (e.g., whether actual provision was 10 percent or 20 percent of predicted amounts) and if the policy excluded essentially nontherapy stays (e.g., stays with predicted therapy amounts less than \$250).

Although current service patterns (with the incentive to furnish therapy) are unlikely to reflect the extent of underprovision that might occur if the PPS established therapy payments based on predicted care needs, the exercise led us to conclude that a LUPA policy could be developed. In the short term, a cost-based measure of underprovision could be used until CMS has evaluated the quality of the minutes' information and, if necessary, taken steps to improve the data quality. In addition to identifying potential underprovision, accurate therapy minute data are key to linking service use to patient outcomes.

The Commission urges the Congress to take up the issue of revising the SNF PPS to better target payments and remove the incentive to furnish therapy services for financial rather than clinical reasons. Because payments would be more accurate, SNFs would have little financial incentive to select certain types of patients and access would improve for beneficiaries who require expensive NTA services. ■

Endnotes

- 1 A new spell of illness begins when a beneficiary has not had a hospital or SNF stay for 60 consecutive days.
- 2 The program pays separately for some services, including certain chemotherapy drugs, customized orthotics and prosthetics, ambulance services, dialysis, outpatient and emergency services furnished in a hospital, computed tomography, MRI, radiation therapy, and cardiac catheterizations.
- 3 Medicare's conditions of participation relate to many aspects of staffing and care delivery in the facility, such as requiring a registered nurse in the facility for 8 consecutive hours per day and licensed nurse coverage 24 hours a day, providing physical and occupational therapy services as delineated in each patient's plan of care, and providing or arranging for physician services 24 hours a day in case of an emergency.
- 4 MA plans do not submit claims to Medicare so their utilization is not captured in the volume or spending measures.
- 5 A more complete description of the SNF PPS is available at http://www.medpac.gov/documents/MedPAC_Payment_Basics_08_SNF.pdf.
- 6 In 2008, the market basket index was 3.3 percent; in 2009, the market basket index is 3.4 percent.
- 7 When the PPS was first implemented, there were 44 case-mix groups and the nursing weights were calculated with data collected from time studies in volunteer facilities in six states in 1990, 1995, and 1997. When the RUGs were expanded to 53 groups, CMS regrouped the time-study observations into the 53 groups and recalibrated the nursing weights. For the therapy weights, the same weights for the 44 groups were used. For example, the two new "ultra high rehabilitation plus extensive services" groups have the same therapy weights as the three "ultra high rehabilitation" groups under the 44-group system, even though these groups used different amounts of therapy (MedPAC 2007a).
- 8 The PPS pays for NTA costs using the nursing component. As a result, it distributes payments based on the expected amount of nursing care, even though NTA costs are not necessarily associated with nursing costs and vary considerably more across patients. For example, payments are the same for patients who require equivalent nursing care even though some patients also require expensive drugs or respiratory therapy services.
- 9 Although the services were ordered and approved by a physician, the orders can be general and give providers latitude in the amount of therapy they furnish.
- 10 The median Medicare share was considerably lower (42 percent) when critical access hospitals were included in this measure.
- 11 A facility may begin to participate in the program but may not be "new." For example, a facility could have a change in ownership (and be assigned a new provider number) or in its certification status from Medicaid-only to dually certified for the Medicaid and Medicare programs. We use the number of SNFs that terminated their participation in the Medicare program as a proxy for the facilities that closed.
- 12 The clinically complex category includes patients who are comatose; have burns, septicemia, pneumonia, internal bleeding, or dehydration; or receive dialysis or chemotherapy. The special care category includes patients with multiple sclerosis or cerebral palsy, those who receive respiratory services seven days per week, or those who are aphasic or tube fed.
- 13 The decline in the number of SNFs willing or able to treat special care and clinically complex patients reflects, in part, the relative attractiveness of the payments for rehabilitation case-mix groups. It may also be due to the expiration in October 2002 of the temporary add-on payments for the nursing components for all case-mix groups. Because nursing components make up a large share of the daily payment for clinically complex and special care cases (these case-mix groups do not have large therapy components to their daily rates), elimination of the additional payments made these case-mix groups even less financially attractive.
- 14 The extensive services category includes patients who have received intravenous medications or suctioning in the past 14 days or have required a ventilator or respiratory or tracheostomy care or have received intravenous feeding within the past 7 days.
- 15 In fiscal year 2007, daily payments for days classified into rehabilitation plus extensive services RUGs averaged 19 percent higher than payments for rehabilitation-only RUGs.
- 16 The 75 percent rule attempts to identify patients who need intensive rehabilitation services provided by IRFs. CMS established criteria (identifying 13 specific conditions) and required that at least 75 percent of the patients treated by IRFs have one of those conditions. In 2004, CMS revised its criteria, clarifying that only a subset of patients with major joint replacements, the largest category of IRF admission at the time, would count toward the threshold then in place. The Medicare, Medicaid, and SCHIP Extension Act of 2007 rolled back and permanently set the compliance threshold to 60 percent. It also put into law CMS's discretionary policy

- allowing IRFs to count patients whose comorbidities (rather than primary diagnoses) were among the 13 conditions toward the compliance threshold.
- 17 The share of beneficiaries treated in home health care increased 8 percentage points (from 21 percent to 29 percent).
 - 18 For example, payments for days in the medium group RMX are 14 percent higher than those for the high group RHX, even though more therapy minutes are required for days to be grouped into RHX.
 - 19 Low share is defined as those SNFs in the bottom 25th percentile of shares of rehabilitation days in the ultra high and very high rehabilitation case-mix groups. High share is defined as those SNFs in the top 25th percentile of shares of rehabilitation days in the ultra high and very high rehabilitation case-mix groups.
 - 20 The average Barthel score (a measure of functional independence) declined 5 percent and the cognitive performance score declined 2 percent. In both scales, lower scores indicate worse status.
 - 21 The community discharge and potentially avoidable rehospitalization rates have been risk adjusted using many resident-level factors, including the presence of advance directives, the Barthel index (a measure of functional independence), the cognitive performance scale (a measure of cognitive impairment), select patient assessment items (e.g., bowel incontinence, indwelling catheter, feeding tube, parenteral or intravenous feeding), a weighted comorbidity index, select comorbid conditions (from the qualifying hospital stay), and length of stay of the qualifying hospitalization. Data for this risk adjustment methodology come from Medicare SNF and hospital claims, the MDS, and the Online Survey Certification and Reporting System (Kramer et al. 2008).
 - 22 CMS's quality measures for short-stay patients include the percentage of patients with delirium, the percentage of patients with pain, the percentage of patients who develop a skin ulcer or had one worsen, flu vaccination rates, and pneumonia vaccination rates. In addition to definitional problems with each measure, there is considerable sample bias inherent in the way the data are collected (MedPAC 2008a). About half of Medicare patients do not stay long enough for a second assessment to be conducted, thereby biasing the data that are collected. The Commission recommended that CMS revise the pain, pressure ulcer, and delirium measures; require SNFs to conduct patient assessments at admission and discharge; and require SNFs to add risk-adjusted rates of community discharge and potentially avoidable rehospitalizations to its publicly reported post-acute care quality measures.
 - 23 To participate in the Medicare and Medicaid programs, all nursing homes and stand-alone SNFs must be surveyed at least once every 15 months. Surveys assess the quality of care, nursing and rehabilitation services, infection control, physical environment, and several other aspects of patient care. The most common deficiencies in quality of care involved accident hazards; providing care for residents' highest practicable physical, mental, and psychosocial well-being; and urinary incontinence (OIG 2008).
 - 24 Because the vast majority of SNFs are parts of larger nursing homes, we assess the access to capital for nursing homes.
 - 25 The HUD Section 232 program finances new or substantial reconstruction of nursing homes. The Section 232/223(f) program finances the refinancing or purchase of existing facilities.
 - 26 Between 2005 and 2007, the share of facilities that sold for more than \$50,000 per bed increased substantially (from 28 percent to 43 percent), while the share that sold for less than \$30,000 per bed decreased.
 - 27 Interest expense is a small share of the SNF market basket (about 3 percent), so even a large increase in interest cost would change the overall market basket index by less than 1 percent.
 - 28 The cost growth shown in Figure 2D-8 differs from the rate reported on p. 174 because it uses a consistent cohort of SNFs in each two-year period for the calculation.
 - 29 This policy would be similar to the low utilization payment adjustment in the home health PPS that pays on a per visit cost basis for episodes with exceptionally few home health care visits.
 - 30 These cost estimates will be more accurate if charge-to-cost ratios can be calculated specific to therapy services rather than as a ratio for all ancillary services or for the total facility.
 - 31 We estimated minutes from the patient assessment by averaging the minutes reported on the assessment over the days covered by the assessment.

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SECTION
2E

Home health services

R E C O M M E N D A T I O N S

2E-1 The Congress should eliminate the market basket increase for 2010 and advance the planned reductions for coding adjustments in 2011 to 2010, so that payments in 2010 are reduced by 5.5 percent from 2009 levels.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

.....
2E-2 The Congress should direct the Secretary to rebase rates for home health care services in 2011 to reflect the average cost of providing care.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

.....
2E-3 The Congress should direct the Secretary to assess payment measures that protect the quality of care and ensure incentives for the efficient delivery of home health care. The study should include alternative payment strategies such as blended payments and risk corridors and outcome-based quality incentives.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

Home health services

Section summary

Indicators of payment adequacy for home health services are positive. Access, volume, and the supply of agencies remained stable or increased, suggesting that Medicare beneficiaries have adequate access to care. Most quality measures improved slightly. Home health agencies (HHAs) continued to be paid by Medicare significantly more than cost, with margins of 16.6 percent in 2007. Because of the high margins and other positive indicators, the Commission has concluded that home health payments should be significantly reduced in 2010 and payments rebased and revised in 2011 to ensure that Medicare does not continue to overpay home health providers.

Access to care and supply of facilities—As in previous years, beneficiaries have widespread access to care in 2008. Ninety-nine percent of beneficiaries live in an area served by at least one HHA, and 97 percent live in an area served by two or more agencies. The number of HHAs continued to grow in 2008, with an increase of about 400 new agencies (overwhelmingly for profit) entering to bring the total number of HHAs to about 9,800. This increase is less than the gain of 644 agencies in 2006 but still is substantial.

In this section

- Background: What is home health care and the home health payment system?
- Are Medicare payments adequate in 2009?
- How should Medicare payments change in 2010?
- Future refinements to the home health benefit

Volume of service and spending—In 2007, the year for which the most recent data are available, volume and average payment per episode continued to rise, with total payments growing 12 percent to \$16 billion. The number of home health users also rose, even as enrollment in Medicare fee-for-service declined. The share of beneficiaries using home health care reached 8.9 percent. The average length of stay also increased, and the average beneficiary had 1.9 episodes. The types of episodes provided continued to shift to higher paying services, with more episodes qualifying for a full-episode payment and more episodes with 10 or more therapy visits.

Quality—Quality trends remained mostly unchanged from previous years. Slight increases occurred in the number of beneficiaries who show improvement in walking, bathing, pain management, transferring, and medication management. However, in 2008, the rate of patients hospitalized while receiving home health care—a marker of potential quality problems—increased by 1 percentage point to 29 percent.

Access to capital—The continuing entry of new agencies and the acquisition of existing agencies by national home health companies suggest that agencies have adequate access to capital for growth. The recent turmoil in financial markets has not significantly affected access to capital for the publicly traded home health companies.

Payments and costs for 2007—In 2007, home health margins were 16.6 percent, about equal to the average of 16.5 percent for 2002–2007. Two factors have increased payments: Payment rates assume more services than are typically provided, and the rate of cost growth has been lower than assumed.

Payment rates for home health care were initially set by using data from 1998, when there were an average of 31.6 visits per episode. With implementation of the prospective payment system (PPS) in 2000, the average number of visits per episode dropped to about 21.8 visits. The type of visits also shifted. Because providers delivered fewer visits than expected, the payments under PPS have been consistently greater than providers' costs.

HHA costs have not increased significantly. In most years, the rate of actual cost growth has been lower than the rate of inflation indicated by the home health market basket. Because payment increases are based on the home health market basket, payment increases have exceeded cost growth even in years when the payment updates have been less than the full market basket.

The home health base rate will increase by about 0.1 percent in 2009, the net impact of the 2.9 percent market basket update required by law and a 2.75 percent reduction to the base rate for changes in coding practice in 2009.

Home health margins are estimated to be 12.2 percent for 2009.

The Congress should eliminate the market basket increase for 2010 and advance the planned reductions for coding adjustments in 2011 to 2010, so that payments in 2010 are reduced by 5.5 percent from 2009 levels.

Recommendation 2E-1

COMMISSIONER VOTES:
YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

The Congress should direct the Secretary to rebase rates for home health care services in 2011 to reflect the average cost of providing care.

Recommendation 2E-2

COMMISSIONER VOTES:
YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

Home health payments will be more than adequate in 2009, and efficient providers should be able to absorb increases in the cost of care even at reduced payment levels in 2010 and 2011. The Commission has recommended two years of reductions because payments for HHAs have exceeded costs for all of the period under PPS by a wide margin, indicating that the payment rates need significant reduction to reach an appropriate level. The recommendation for 2010 would advance a reduction CMS has planned for 2011 by one year and eliminate the market basket update for 2010. These two actions, combined with a reduction CMS already has slated for 2010, would reduce payments by 5.5 percent.

Our recommendation for 2011 would lower payments to reflect the estimated cost of care for that year. The home health product has changed substantially since PPS was established, and the current rates are obviously well in excess of an efficient provider's cost. The reduction in 2010 will begin the process

of reducing payments to appropriate levels, but current margins suggest that further reductions will be necessary. The recommendation for 2011 will require that the Secretary base the rates for that year on the estimated cost of care for the average home health episode.

Recommendation 2E-3

COMMISSIONER VOTES:
YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

The Congress should direct the Secretary to assess payment measures that protect the quality of care and ensure incentives for the efficient delivery of home health care. The study should include alternative payment strategies such as blended payments and risk corridors and outcome-based quality incentives.

This recommendation charges the Secretary with developing additional changes to home health payments to safeguard beneficiary care. The Commission believes that two types of safeguards need to be developed: financial safeguards that can be proposed concurrently with the rebasing recommended for 2011, and quality-of-care safeguards that can be implemented as soon as practicable.

Financial safeguards, such as profit and loss corridors, should be proposed concurrently when the rebasing is implemented in 2011. These financial safeguards would help to mitigate any adverse effects of the across-the-board reductions in the two previous recommendations by redistributing payments based on agency losses and profits.

The Commission believes that both the financial measures and the quality-of-care measures need to be implemented, but it is critical that the rebasing for 2011 include a proposal for financial safeguards. The quality incentives should be implemented as soon as possible, but the proposal of the financial safeguards should take precedence and be concurrent with the rebasing. ■

Background: What is home health care and the home health payment system?

Medicare home health care consists of skilled nursing, physical therapy, occupational therapy, speech therapy, aide service, and medical social work provided to beneficiaries in their homes. To be eligible for Medicare's home health benefit, beneficiaries must need part-time (fewer than eight hours per day) or intermittent (temporary but not indefinite) skilled care to treat their illnesses or injuries and must be unable to leave their homes without considerable effort. Medicare does not require beneficiaries to pay copayments or a deductible for home health services.

Unlike Medicare's coverage for skilled nursing facilities, Medicare does not require a hospital stay to qualify for home health care. The share of beneficiaries admitted from the community compared with admissions after a facility stay has increased significantly since 2000. In 2005, about 45 percent of home health episodes were preceded by a stay in an inpatient facility (acute care hospital, skilled nursing facility, inpatient rehabilitation facility, or long-term care hospital).

Medicare pays for home health care in 60-day episodes. Episodes begin when patients are admitted to home health care. Patients who complete their course of care before 60 days have passed are discharged. If they do not complete their care within 60 days, another episode starts and Medicare makes another episode payment. As long as they meet the eligibility standards for the benefit, beneficiaries may receive an unlimited number of consecutive home health episodes.

Agencies receive one payment per episode for home health services. Medicare adjusts this payment based on measures of patients' clinical and functional severity and the use of therapy during the home health episode. Medicare also adjusts for differences in local wages using the hospital wage index. Medicare makes additional adjustments to some episodes under special circumstances:

- An outlier payment is triggered if the cost of an episode exceeds Medicare's payments by a certain threshold.
- A low utilization payment adjustment makes a per visit payment if a patient receives four or fewer visits during an episode.

- A partial episode payment requires the initiating agency to split the payment for a patient who transfers from one agency to another during an episode.

Medicare implemented significant refinements to the home health prospective payment system (PPS) in 2008 (MedPAC 2008). The revised system bases payments on therapy use and an episode's timing in a sequence of consecutive episodes in addition to the patient's clinical and functional characteristics. It also expands the patient classification system known as the home health resource groups, or HHRGs, from 80 HHRGs to 153 HHRGs. The HHRGs measure the clinical, functional, and service severity of a patient's conditions. The Commission's analysis of the changes is discussed in our March 2008 report. (An overview of the home health PPS is available at http://medpac.gov/documents/MedPAC_Payment_Basics_08_HHA.pdf.)

Substantial growth in spending for home health services occurred under PPS

In the early 1990s, both the number of home health users and the amount of services they used grew rapidly. At the same time, the home health benefit increasingly began to resemble long-term care and look less like the medical services of Medicare's other post-acute care benefits (MedPAC 2005).

The trends of the early 1990s prompted stricter enforcement of program integrity standards and refinements to eligibility standards and culminated in replacement of the cost-based payment system with a PPS in 2000. The first major change was implementation of the interim payment system (IPS) in 1997, which cut reimbursement levels significantly. Between 1997 and 2000, the number of beneficiaries using home health services fell by about one million, and the number of visits fell by 65 percent (Table 2E-1, p. 190). Total spending for home health services declined by about 50 percent. IPS also had a swift effect on the supply of agencies, and by 2000 the number of agencies fell by 34 percent to 6,881. The Balanced Budget Act of 1997 (BBA) created a PPS for the home health benefit, which began operation in October 2000. Use of home health services continued to change after the PPS was implemented in 2000. Between 2000 and 2007, home health aide visits fell from about 30 percent of total visits to about 20 percent. In addition, the share of therapy visits increased from about 19 percent in 2000 to 26 percent in 2007. Medicare payments made up about 55 percent of the revenues for the average HHA in 2007.

**TABLE
2E-1****Changes in home health spending, visits, and users**

	1997	2000	2007	Percent change	
				1997-2000	2000-2007
Agencies	10,447	6,881	9,676	-34%	41%
Total spending (in billions)	\$17.7	\$8.5	\$15.7	-52	84
Home health spending per FFS beneficiary	\$516	\$258	\$454	-50	76
Users (in millions)	3.6	2.5	3.1	-31	26
Number of visits (in millions)	258	91	114	-65	23
Visit type (percent of total)					
Home health aide	48%	31%	20%	-37	-35
Skilled nursing	41	49	54	20	10
Therapy	10	19	26	101	37
Medical social services	1	1	1	1	*
Visits per user	73	37	37	-49	-2
Percent of FFS beneficiaries who used home health	10.5%	7.4%	8.9%	-30.1	20.0

Note: FFS (fee-for-service).

*Changed by less than a half percent.

Source: Home health standard analytical file; Health Care Financing Review, Medicare and Medicaid Statistical Supplement, 2002; and Office of the Actuary, CMS.

It is difficult to assess completely how the BBA changed Medicare's home health benefit because this service lacks clear, practical guidelines to identify beneficiaries who would benefit from receiving home health care and what services they ought to receive. The steep declines in services between IPS and implementation of PPS do not appear to have adversely affected the quality of care beneficiaries received; one analysis found that patient satisfaction with home health services was mostly unchanged in this period (McCall et al. 2004). An analysis of all the BBA changes related to post-acute care, including IPS and changes for other post-acute care sectors, concluded that the rate of adverse events generally improved or did not worsen when IPS was in effect (McCall et al. 2003). The similarity in quality of care under IPS and PPS, despite the substantial decline in visits per beneficiary, suggests that the payment reductions in the BBA led agencies to be more efficient without compromising patient care (Schlenker et al. 2005).

The benefit's lack of definition contributes to significant geographic variations in the use of home health services. A recent analysis that examined patients with chronic

conditions found that home health spending between the highest and lowest regions varied widely, with spending equaling \$5,904 in the highest spending area compared to \$504 in the lowest (Wennberg et al. 2008). Better information about which patients would most benefit from home health care would be beneficial. This broader perspective on home health policy is consistent with our goal for post-acute care: to base decisions about where beneficiaries receive post-acute care services on patient characteristics and resource needs.

We consider the adequacy of Medicare payment in terms of the efficient provider, as required by statute. In this regard, the Commission has consistently found that payments have been more than adequate for most of the years PPS has been in operation, with margins averaging 16.5 percent in 2002-2007. To the extent that these high margins reflect profits that stem from high payments, these margins suggest that neither beneficiaries nor taxpayers are receiving appropriate value for the funds Medicare spends on home health. The high margins indicate that a significant fraction of Medicare's home health payments do not contribute to quality or additional

services. The consistently high margins undermine the incentives for efficiency that are supposed to exist under a PPS. Specifically, providers are under less pressure to seek cost-reducing efficiencies when payments far exceed their costs. The payment update has been reduced in some years, but even with these reductions significant margins have remained.

Program integrity activity increased in 2007 and 2008

The significant growth in the home health benefit under PPS has raised concerns that fraudulent providers have returned. In October 2007, CMS launched a demonstration to identify fraudulent providers in Los Angeles, California, and Houston, Texas. Providers in these areas are subject to additional review, including submitting ownership information and undergoing a special survey of their operations by state regulators. CMS will conduct the demonstration for two years, and if the techniques identify fraudulent providers, the demonstration may be expanded to other areas.

Concerns about alleged widespread fraud in Miami-Dade County, Florida, led CMS to expand its fraud efforts to this area (Weems 2008), noting that the county's HHAs accounted for 60 percent of the nation's outlier payments in 2007. Outlier payments constituted more than half of Medicare reimbursement for 200 of the county's HHAs. CMS suspended payments to 13 HHAs with the highest outlier payments and is reviewing their claims. In 2009, agencies in Miami-Dade County with outlier payments that exceed 5 percent of their Medicare payments will be subject to additional review.

Are Medicare payments adequate in 2009?

Each year, the Commission makes payment update recommendations for home health services for the coming year. In our framework, we address whether payments for the current year (2009) are adequate to cover the costs efficient HHAs incur and how much efficient providers' costs should change in the coming year (2010). To make these judgments, we consider beneficiaries' access to care, changes in the volume of services, changes in the quality of care, access to capital, and the relationship between Medicare's payments and providers' costs.

Beneficiary access to HHAs is stable and supply of HHAs continues to rise in 2008

Most beneficiaries live in an area served by one or more HHAs. In the 12 months preceding February 2008, 99 percent of all Medicare beneficiaries lived in a ZIP code served by at least one HHA; 97 percent of beneficiaries lived in areas served by two or more HHAs. These data indicate that the vast majority of beneficiaries live in an area served by home health.¹

The Office of Inspector General and Agency for Healthcare Research and Quality, through the Consumer Assessment of Healthcare Providers and Systems (CAHPS®) survey, have studied access to home health care (OIG 2006). Those studies found that most beneficiaries did not have difficulty accessing home health care, but these agencies have not conducted studies recently. For example, the last CAHPS survey that included home health care was for 2004. Updated studies would be useful to follow changes in access.

Changes in the supply of agencies

Historically, the supply of agencies has been closely correlated with trends in total home health spending, and as spending has risen in recent years the number of agencies has increased significantly. Spending and the number of agencies rose rapidly in the early and mid-1990s when agencies were reimbursed through cost-based payment. The number of agencies declined in the late 1990s when IPS was implemented. After PPS was implemented, payments began to increase and so did the number of agencies. Since 2003, there has been an average increase of about 490 agencies every year. The growth peaked in 2006, when 644 new agencies were added. Between 2001 and 2008, the total number of agencies increased by 2,700, or about 39 percent.

In 2008, there was a net gain of about 400 agencies, or a growth of about 4 percent over 2007. The supply of agencies continues to increase faster than the growth in beneficiaries, as the number of agencies per 10,000 Medicare beneficiaries rose from 2.0 to 2.8 agencies from 2002 to 2008 (Table 2E-2, p. 192).

Growth has been concentrated in relatively few areas, and five states (Texas, Florida, Michigan, Nevada, and Utah) accounted for about 72 percent of the total increase in agencies between 2003 and 2007. Among these five states, Texas and Florida accounted for most of the new agencies. About 27 states experienced an increase in the number of agencies from 2003 to 2008, while 19 states

**TABLE
2E-2****The number of home health agencies continues to grow**

	2002	2003	2004	2005	2006	2007	2008	Average annual percent change	
								2002-2007	2007-2008
Number of agencies	7,052	7,335	7,797	8,305	8,949	9,404	9,801	5.9%	4.2%
Change in agency supply	-6	283	462	508	644	455	397	N/A	N/A
Number of agencies per 10,000 beneficiaries	2.0	2.1	2.2	2.3	2.5	2.7	2.8	6.2	3.7

Note: N/A (not applicable).

Source: CMS's Providing Data Quickly database.

experienced declines (levels in the remaining 4 states remained steady). However, the magnitude of the increases was much greater than the magnitude of the decreases. Among the states with an increase, the average increase per state was 84 agencies, or 30 percent, from 2003 to 2008. For those states with a decrease, the average decline was about 4.5 agencies, or 7 percent, for the same period. Concerns about fraudulent business practices have led CMS to initiate investigations in areas that experienced high growth in HHA supply.

The growth in agencies has led CMS to curtail funding for the certification of new agencies. In 2007, CMS instructed state survey agencies to prioritize oversight of existing agencies over the certification of new ones. However, this action is not a moratorium on new agencies. Agencies that wish to become a Medicare provider may use an independent certification agency, such as the Joint Commission for the Accreditation of Health Care Organizations, Accreditation Commission for Home Care, or the Community Health Accreditation Program. Medicare accepts accreditation by one of these entities in lieu of a review by a state survey agency. The share of new agencies that are certified through these entities has increased significantly in the last two years. For example, in 2008, about 65 percent of the new agencies were certified through the accreditation agencies; in previous years, most new agencies were certified by state survey agencies. The greater use of private accreditation entities indicates that, in many areas, CMS is more concerned about policing existing agencies than about the need to certify new ones.

Because home health services are not delivered in a facility, the number of agencies in a market is not a

complete indicator of the availability of care. The size of agencies in an area is also important in determining market capacity. For example, in 2006, the agency at the 20th percentile of the caseload distribution provided care for about 150 episodes per year compared with 1,050 episodes for the agency at the 80th percentile. Agencies can also adjust their service areas and staffing as market conditions change.

Volume of and spending for home health services continued to grow rapidly through 2007

The volume of home health services has risen rapidly under PPS; between 2002 and 2007, average annual growth in episode volume rose 7.2 percent per year to 5.8 million episodes, while spending grew at 10.5 percent, reaching almost \$16 billion (Table 2E-3). The spending growth reflects an increase in the number of users and high-paid episodes. Between 2008 and 2017, Medicare home health spending is expected to grow an average 5.4 percent annually (OACT 2008).

The number of beneficiaries using home health services has risen significantly

Between 2002 and 2007, the share and number of beneficiaries using home health services rose 23 percent. The number of users continued to grow, even as beneficiary enrollment in Medicare's traditional fee-for-service (FFS) program dropped. In 2006 and 2007, more beneficiaries enrolled in Medicare Advantage and the number of FFS beneficiaries dropped 2.2 percent each year; at the same time, the share of beneficiaries using home health services rose from 8.6 percent to 8.9 percent of FFS enrollees.

**TABLE
2E-3****Changes in home health spending and utilization, 2002–2007**

	2002	2004	2006	2007	Average annual percent change	
					2002–2006	2006–2007
FFS beneficiaries (in millions)	34.6	36.0	35.4	34.7	0.6%	–2.2%
Home health users (in millions)	2.5	2.8	3.0	3.1	4.8	2.2
Share of FFS beneficiaries who used home health	7.3%	7.8%	8.6%	8.9%	4.2	4.4
Total spending (in billions)	\$9.6	\$11.5	\$14.0	\$15.7	10.0	12.2
Payments per:						
FFS beneficiary	\$277	\$318	\$396	\$454	9.4	14.7
Home health user	\$3,802	\$4,053	\$4,621	\$5,075	5.0	9.8

Note: FFS (fee-for-service).

Source: MedPAC analysis of home health standard analytical file.

Beneficiary length of stay in home health care has increased

The number of episodes per user has also increased, indicating that lengths of stay in home health care have become longer. From 2002 to 2006, the number of episodes per user increased an average of 2.7 percent per year (Table 2E-4). An analysis of home health stays (all the consecutive 60-day episodes that occur in a single home health stay) from 2001 to 2003 shows that stays with three or more episodes increased, indicating that the number of days in the average home health stay has risen (data not shown).

The rising length of stay may reflect a return of patients whom agencies may have avoided under IPS. Under this pre-PPS payment system in place from 1998 to 2000, agencies had a disincentive to serve patients with long

stays because of the per beneficiary payment and other limits. These limits were eliminated when PPS was implemented in 2000. A recovery from the IPS limits may explain the rise in length of stay in the early period of PPS, but the increase in length of stay persisted 7 years after IPS ended and appears to have accelerated in 2007. The alleged fraudulent outlier claims in Miami–Dade County were for patients with relatively long lengths of stay and may also be contributing to some of the growth in 2006 and 2007. Longer stays may reflect changes in patient need, but they also coincide with the incentive that exists under PPS to generate additional episodes.

Volume trends have increased the average payment per episode

Change in the mix of services—from lower paid episode types to higher paid ones—has contributed to the increase in average payment per episode. In 2007, average payment

**TABLE
2E-4****Average number of episodes per user has increased**

	2002	2004	2006	2007	Average annual percent change	
					2002–2006	2006–2007
Episodes per home health user	1.6	1.7	1.8	1.9	2.7%	3.4%

Source: MedPAC analysis of home health standard analytical file.

**TABLE
2E-5****Home health episode volume has increased**

	2002	2004	2006	2007	Average annual percent change	
					2002-2006	2006-2007
Episodes by type (in millions):						
Less than 10 therapy visits	3.2	3.6	4.0	4.3	6.2%	3.6%
10 or more therapy visits	0.9	1.2	1.5	1.6	11.9	11.0
Total	4.1	4.8	5.5	5.8	7.6	5.6
Average payment per episode	\$2,329	\$2,366	\$2,546	\$2,705	2.3	6.2
Share of episodes with:						
10 or more therapy visits	23%	25%	27%	28%	3.2	5.2
4 or fewer therapy visits	14	13	12	11	-2.8	-7.7

Note: Totals may not sum due to rounding.

Source: MedPAC analysis of home health standard analytical file.

increased by 6.2 percent, rising to \$2,705 per episode (Table 2E-5). However, again, like the growth in episodes per user, some of the increase in average payment per episode is likely attributable to the fraudulent outlier claims believed to have occurred in Miami-Dade County. In contrast, the growth in average payment per episode was 3 percent in 2006.

Between 2001 and 2007, episodes with 10 or more therapy visits qualified for significantly higher payments. During this time, these types of episodes grew at twice the rate of those with fewer than 10 therapy visits, increasing the share of episodes with 10 or more therapy visits from 23 percent to 28 percent of all episodes. In 2006 and 2007, these types of episodes accounted for more than 50 percent of the increase in episodes. Under the PPS refinements implemented in 2008, a series of consecutive thresholds that increase payment more gradually as the number of therapy visits increases replaced the 10 therapy visit threshold. The multiple threshold approach provides a more gradual increase in payment across the range of therapy visits provided, and this approach provides better financial incentives to provide the range of therapy services Medicare beneficiaries need.

Consistent with the increase in high therapy use episodes has been a decline in episodes with four or fewer visits in a 60-day period. These episodes receive a low utilization payment adjustment (LUPA), which is paid on a per visit basis at a rate significantly lower than the average

full-episode payment. Between 2002 and 2007, the share of LUPA episodes declined from 14 percent to 11 percent. The decline indicates that an increasing number of episodes include four or more visits and receive full-episode payments. The 2008 changes to PPS increased reimbursement for the first visit in a LUPA, and this increase may slow the rate of decline in the number of LUPA episodes.

A rise in the number of episodes qualifying as outliers has also increased the average payment per episode. Outlier payments, because they are intended to cover the cost of exceptionally high-cost cases, are much higher than the average full-episode payment. Because of difficulties in accurately targeting these cases, Medicare has typically paid out less than the 5 percent of total payments reserved for outliers. The share of outlier payments was about 2.5 percent in 2002 and has risen to about 6 percent in 2007 (CMS 2008a). The unusual number of outlier claims in 2007 attributable to alleged fraud in Miami-Dade County may be artificially inflating the average payment per episode for that year.

Outcome measures suggest stable or improved home health quality in 2008

On the basis of Medicare's Outcome and Assessment Information Set (OASIS), which measures patients' clinical severity and functional limitations at the beginning and end of an episode, home health quality either held steady or improved in 2008, with one exception. OASIS

**TABLE
2E-6**

Share of patients achieving positive outcomes continues to increase

	2004	2005	2006	2007	2008
Functional/pain measures (higher is better)					
Improvements in:					
Walking	36%	37%	39%	41%	44%
Getting out of bed	50	51	52	53	53
Bathing	59	61	62	63	64
Managing oral medications	37	39	40	41	43
Patients have less pain	59	61	62	63	64
Adverse event measures (lower is better)					
Any hospital admission	28	28	28	28	29

Source: MedPAC analysis of CMS Home Health Compare data.

allows HHAs to track their patients’ outcomes and evaluate their use of resources, care planning, and other processes to improve services. CMS also uses OASIS to produce reports for agencies’ quality improvement efforts and publishes OASIS-based quality information to help consumers choose high-quality providers.

The quality measures in Table 2E-6 are some of the OASIS items Medicare reports to the public. The first five rows show the percent of patients who improved as a percentage of the total number who were admitted with some level of limitation for each time period; increases in these percentages indicate improving or stable quality. The final row shows the percentage of patients who used the hospital while under the care of an HHA. For this measure, lower scores suggest better care.

The home health quality indicators are risk adjusted to account for patients’ diagnoses, comorbidities, and functional limitations.² Thus, to the extent possible, improvements in the functional measures are intended to reflect small increases in the quality of care provided rather than changes in patient characteristics. In 2008, slight gains were made in most measures, but the rate of hospital admissions, an adverse measure, increased 1 percentage point.³

Several factors suggest HHAs serving Medicare beneficiaries have little or no problem with access to capital

Few HHAs obtain access to capital through publicly traded shares or public debt like issuing bonds. HHAs are not as capital intensive as other providers because they do not require extensive physical infrastructure, and

most are too small to attract interest from capital markets. Investor analyses of the leading publicly traded companies are limited indicators of the general industry for two reasons. Medicare home health care has a small share of the entire “home care” market that they analyze, which includes nonskilled Medicaid and private-duty nursing, nurse staffing services, home infusion, and home oxygen services. Also, publicly traded companies are a small portion of the total number of agencies in the industry. Though the recent financial turmoil has affected the ability of some health care providers to raise capital, the major publicly traded home health firms have been able to meet their capital needs with little problem. For example, Amedisys and LHC both expanded their lines of credit in 2008. Though credit markets may be troubled, issues with capital have not caused the major home health firms to adjust their plans for expansion.

The entry of new providers indicates that access to capital for the privately held agencies is adequate. In 2008 there was a net increase of 400 HHAs, and most of these agencies are for profit.

While most HHAs are independently operated or part of a small chain of local or regional agencies, many of the larger publicly traded companies are acquiring established agencies. Purchasing established agencies allows firms to enter markets with an established referral base in the local market as well as with the staffing and other infrastructure for delivering services. Consolidation activity is expected to continue. Like the overall growth in agencies, these acquisitions suggest that the publicly traded firms have adequate access to capital.

**TABLE
2E-7**

**Margins for freestanding
home health agencies**

	2006	2007	Percent of agencies (2007)
All	15.8%	16.6%	100%
Geography			
Urban	15.1	16.4	67
Mixed	17.3	18.7	17
Rural	16.3	14.0	16
Type of control			
For profit	15.8	18.6	79
Nonprofit	11.8	11.9	14
Government*	N/A	N/A	N/A
Volume quintile			
First	10.8	10.3	20
Second	11.4	11.6	20
Third	11.4	12.9	20
Fourth	15.5	16.7	20
Fifth	17.2	17.7	20

Note: N/A (not available).

*Government-owned providers operate in a different context from other providers, so their margins are not necessarily comparable.

Source: MedPAC analysis of home health Cost Report files from CMS.

Medicare home health payments continue to be overly generous relative to HHAs' costs

In 2007, the aggregate Medicare margin (difference between payments and costs) for 4,629 freestanding HHAs was 16.6 percent (Table 2E-7). We focus on the freestanding HHAs because they are the majority of providers and do not reflect the impact of the allocation of overhead costs from the hospital.

The variation in freestanding home health margins is similar to our findings in prior reports. The agency at the 25th percentile in the distribution had a margin of 3.1 percent in 2007, and the agency at the 75th percentile in the distribution had a margin of 26.1 percent. The variation in margins indicates that agencies differ in their profitability. The fact that some agencies have losses under Medicare is similar to our findings in other payment systems and does not suggest specific problems in the home health PPS. About 20 percent of providers have losses under Medicare, and the composition of this group of HHAs with respect to ownership and geography

does not differ significantly from the full population of Medicare-participating HHAs. However, the agency size (as measured by number of episodes provided in a year) does appear to have a relationship with agency margins. Smaller agencies tend to have lower margins, and a higher rate of negative margins, than larger ones. We anticipate investigating further the factors underlying the variation in margins as part of our future work.

The data suggest that profitability does not affect quality. The Commission reviewed the quality data for freestanding providers and found that scores on a composite indicator and the rate of adverse events had virtually no correlation with profitability.

The Commission considers the margins of hospital-based HHAs separately. Hospital-based providers have higher costs, in part because hospitals allocate overhead costs to the home health provider; if these overhead costs were not allocated, the hospital-based providers' margins would be higher. The patient and other characteristics of hospital-based HHAs do not explain these higher costs. Hospital-based providers report higher costs per episode but provide fewer visits per episode than freestanding providers. Hospital-based providers also have a lower case-mix index, which suggests that they serve less costly patients. Finally, hospital-based and freestanding providers deliver care in the same setting—the beneficiary's home—so the differences we see in costs are not due to different settings. The financial performance of hospital-based HHAs is included in the Commission's analysis of hospital payments.

The Commission has found that payments consistently have been more than adequate for most of the years PPS has been in operation. Margins have remained high despite legislative changes to the market basket that reduced the annual increase in payment by an average of 1 percent from 2001 to 2005 and a rate freeze in 2006. These overpayments are a burden for the federal budget but also raise the premium beneficiaries must pay from their own funds, as a portion of home health care is funded by the Part B premium.

The BBA required that the PPS base rate for a home health episode, set in 2001 and therefore based on historical visit data under IPS, be budget neutral so that aggregate spending would equal the spending that would have occurred if IPS had remained in effect. However, the average number of visits dropped between 1998 and implementation of PPS. In 2007, the average episode

included 22 visits (Table 2E-8). The difference between the visit level included in the base rate calculation and the level actually provided under PPS means that the actual cost for an episode is significantly lower than what was assumed when the base rate was set in 2001. Because providers delivered fewer visits than expected, the payments under PPS have been consistently greater than providers' costs.

Policymakers likely anticipated that utilization would fall, and the BBA included a provision that reduced payments after PPS was implemented, but this adjustment did not significantly change home health financial performance. Margins for HHAs were 14.8 percent in 2003, after this reduction was implemented.

The significant change in visits illustrates that agencies can dramatically change the content and amount of services when the payment incentives change. Before PPS, agencies had an incentive to maximize the number of visits they provided. PPS has different incentives because payment is based on a beneficiary's characteristics, not the number of services provided. Agencies have reacted as expected, by decreasing the number of visits and increasing the number of episodes. There was also a shift in the type of services to provide more therapy. The change in the level of visits and mix of care did not change the quality of care provided. The Commission and others found that the quality provided under PPS was equal to the care provided during the IPS period (MedPAC 2004, Schlenker et al. 2005). That the average number of visits has remained steady at about 22 visits under PPS reflects the relative stability of the incentives under the system. That quality was maintained despite a 30 percent decline in visits per episode further demonstrates the malleable nature of the benefit, as agencies managed to deliver the same quality with significantly fewer visits.

Reductions to payment updates have not been effective in lowering home health margins

The base rate in the home health PPS should more closely reflect the cost of the visits and other services delivered in the average home health episode. The Medicare statute specifies that home health payments are updated annually by the applicable market basket. However, because of the high margins, the annual payment update for home health care has been reduced or eliminated in most years since 2001. Despite these reductions, margins have remained high.

TABLE 2E-8

Changes in average visits per episode, 1998 and 2007

	1998	2007	Change in visits per episode	Percent change
Physical therapy	3.1	4.5	1.4	49%
Occupational therapy	0.5	0.9	0.4	63
Speech-language pathology	0.2	0.1	-0.1	-21
Skilled nursing	14.1	11.8	-2.3	-16
Medical social work	0.3	0.1	-0.2	-55
Home health aide	13.4	4.5	-8.9	-66
Total	31.6	22.0	-9.6	-30

Source: CMS 2000; MedPAC analysis of home health standard analytical file, excluding low utilization payment adjustment episodes.

The experience of 2006, a year when the home health payment update was eliminated, illustrates how agency margins have remained high despite changes to the payment update. The Deficit Reduction Act of 2005 eliminated the home health update for 2006, effectively freezing home health rates at the 2005 level. Despite this reduction, average payments per episode increased by 4.5 percent. This increase apparently offset most cost increases experienced in 2006, and the margin for freestanding providers fell between 2005 and 2006 by 1.6 percentage points, from 17.4 percent to 15.8 percent. Half of the decline in margins was made up in 2007, when HHAs received the full market basket update.

Projecting margins for 2009

In modeling 2009 payments and costs, we incorporate policy changes that went into effect between the year of our most recent data, 2007, and the year of margin projection as well as those changes scheduled to be in effect in 2010. The major changes are:

- Implementation of the revised system of HHRGs. The new system of resource groups redistributes payments in a budget-neutral manner. However, in our modeling of margins for 2008 we assume, consistent with past experience, some changes in agency coding practices that increase payment.
- Impact of case-mix adjustment. CMS began to reduce payments in 2008 and will do so through 2011 to

correct for an increase in reported case mix that occurred between 2000 and 2005. The reduction will lower payments by 2.75 percent in 2008–2010 and by 2.71 percent in 2011. Our modeling assumes planned reductions of 2.75 percent in 2008–2010.

- Market basket. By statute, HHAs will receive a full market basket increase of 2.9 percent in 2008.

With these policies and the changes in episode cost discussed below, we estimate that HHAs will have margins of 12.2 percent in 2009. This estimate includes the effect of the 2010 coding adjustment CMS plans to implement to provide policymakers with an estimate that reflects what margins for HHAs would be if current policies and fiscal trends continued. If the estimate did not include the 2010 policy, the margin for 2009 would be 14.6 percent.

Changes in patient case mix and coding practices

The implementation of refinements to PPS in 2008 will likely lead to an increase in the average home health case-mix index (i.e., a rise in the average payment per episode) and higher payments due to changes in coding practices. The home health PPS, like the other payment systems, sets payments on the basis of a patient’s health status and expected use of health care resources. For a patient with a range of clinical conditions, providers under PPS have an incentive to use billing codes for the clinical conditions that most affect payment. When Medicare payment changes are associated with particular clinical conditions, providers tend to change their coding practices accordingly. The reported prevalence of conditions linked to higher enhanced payments typically increases, and aggregate payments increase.

Implementation of the HHRG 153 system presents a substantial opportunity for changing coding. For example, the number of diagnostic conditions that affect payment is expanding from 4 to 22 categories. Consequently, our estimate of 2008 payments assumes that agencies will change their coding practices under the new HHRG 153. On the basis of CMS’s estimate of coding changes that occurred between 2000 and 2005, we assume that changes in coding practice will raise payments by 1.6 percent annually in 2008 and 2009. This increase is consistent with the nominal annual increase in the case-mix index between 2001 and 2007.

Growth in cost per episode

Freestanding agencies in 2007 experienced a per case cost increase of less than 1 percent. While this increase

may appear modest compared with the experience of other providers, it is consistent with our findings for home health care in prior years. Between 2002 and 2007, episode costs rose an average 1.5 percent a year, with increases in individual years ranging from less than 1 percent to 3.5 percent. Because it is not clear how the economic changes of 2008 will affect HHAs, the Commission has assumed that cost growth will be at the levels estimated by the home health market basket in 2008 and 2009 (2.9 percent in both years). This rate of growth is high relative to experience but is similar to that of other Medicare providers.

How should Medicare payments change in 2010?

The evidence suggests that payments for home health care are more than adequate and that significant changes are necessary to lower them.

RECOMMENDATION 2E-1

The Congress should eliminate the market basket increase for 2010 and advance the planned reductions for coding adjustments in 2011 to 2010, so that payments in 2010 are reduced by 5.5 percent from 2009 levels.

RECOMMENDATION 2E-2

The Congress should direct the Secretary to rebase rates for home health care services in 2011 to reflect the average cost of providing care.

RATIONALES 2E-1 AND 2E-2

Medicare has overpaid for home health services since the PPS was implemented, and significant changes to payments are necessary to protect the program and beneficiaries. Our review of payments for 2007 and our estimate for 2009 reflect findings from previous years that payments are more than adequate. These high payments are counter to the Commission’s goal for payment: that Medicare payments cover the costs of care for efficient providers. Home health payments clearly exceed this level. The experience under PPS demonstrates that simply eliminating the market basket will not be adequate to lower home health margins; the Commission therefore recommends that payments be reduced through a two-step policy, with the goal of lowering 2011 payment rates to the average estimated cost of a home health episode.

Margins for 2009 suggest that efficient providers should be able to absorb any cost increase in 2010 at reduced payment levels. In addition to eliminating the market basket increase for 2010, the Commission is recommending that a payment reduction for 2011 be accelerated to 2010. Under current policy, CMS plans to reduce payments for home health care by 2.75 percent in 2010 and by 2.71 percent in 2011. Given current home health financial performance, there is no reason to delay the reduction planned for 2011. The Commission's recommendation for 2010 would add the 2011 reduction to the current reduction in 2010 and eliminate the market basket update for 2010. The combination of these actions would reduce rates for 2010 to 5.5 percent less than 2009 levels. The 2010 policy is intended as an initial step of the Commission's primary goal of lowering home health care rates to reflect the cost of providing care.

For 2011, the Commission is recommending that home health care rates be set to reflect the projected cost of the average home health episode. Our analysis of home health margins indicates that current rates far exceed providers' actual costs, and that would likely be the case even if the recommendation for 2010 is implemented. Under this recommendation, the Secretary would estimate the costs of care for 2011 by reviewing costs from a recent year. The costs would also be adjusted for any projected changes in service provision or costs between the year reviewed and 2011. Basing payments on providers' actual costs would effectively reset payment rates to levels that would not result in exorbitant profit margins. Lowering rates to actual costs would require CMS to review home health cost reports for a recent year, preferably for a period after implementation of the PPS refinements in 2008. With these data, CMS would set the rate for 2011 by estimating how the average episode cost would change between the year reviewed and 2011.

The Commission has noted that there is significant variation in the services provided to home health beneficiaries and that the payments made under PPS do not always accurately reflect the level of care provided. The Commission is concerned that rebasing may result in inadequate payments for some agencies or may encourage stinting. To safeguard against this possibility, the Commission believes that rebasing should be implemented concurrently with changes that safeguard beneficiary care and ensure accurate reimbursement (see Recommendation 2E-3).

Spending

- The recommendation for 2010 would lower program spending relative to current law by between \$1 billion and \$5 billion for fiscal year 2010 and by between \$5 billion and \$10 billion over five years.
- The recommendation for 2011 would further reduce payments; the final amount would depend on the analysis by the Secretary.

Beneficiary and provider

- Some reduction in provider supply, particularly in areas that have experienced rapid growth in the number of providers. Prior experience with home health care indicates that access to care should remain adequate even if the supply of agencies declines.

The recent experience of the home health industry suggests that the reductions in payment should not harm beneficiary access to care. For example, in fiscal year 2003 CMS implemented a 5 percent reduction to home health payment rates, similar in magnitude to our 2010 recommendation. In that year, the number of providers and the number of episodes increased, although the number of visits in an episode fell slightly. This finding suggests that the 5.5 percent reduction for 2010 would not disrupt access to care.

Our recommendation for 2011 would reset payments to cost and would likely result in some agencies exiting Medicare. However, even if the agency supply falls from the 2008 level, the experience of the last five years indicates that widespread access to care can be maintained with a smaller number of agencies than are in the program today. For example, in 2003 there were 2,466 fewer agencies than in 2008, but even the smaller number of agencies in 2003 was enough to ensure that 99 percent of beneficiaries lived in an area served by an HHA. The near universal access with fewer agencies suggests that if supply were to fall in the future access to care would remain adequate.

RECOMMENDATION 2E-3

The Congress should direct the Secretary to assess payment measures that protect the quality of care and ensure incentives for the efficient delivery of home health care. The study should include alternative payment strategies such as blended payments and risk corridors and outcome-based quality incentives.

RATIONALE 2E-3

This recommendation charges the Secretary with developing additional changes to home health payments to safeguard beneficiary care. The Commission believes that two types of safeguards need to be developed: financial safeguards that can be proposed concurrently with the rebasing recommended for 2011, and quality of care safeguards that can be implemented as soon as practicable.

Financial safeguards, such as profit and loss corridors, should be proposed concurrently when the rebasing is implemented in 2011. These financial safeguards would help to mitigate any adverse effects of the across-the-board reductions in Recommendations 2E-1 and 2E-2 by redistributing payments based on agency losses and profits. In addition, the Secretary should study possible refinements to PPS, such as altering the length of the episode and refinements to better account for patient characteristics related to chronic conditions. The results of the Secretary's analysis would be financial safeguards that can be proposed in 2011, concurrently with the rebasing.

Consistent with past Commission recommendations, CMS should also safeguard quality by implementing a pay-for-performance measure that penalizes agencies with high rates of adverse events (the rate at which their patients are hospitalized or use the emergency department). Adverse events can serve as a benchmark for identifying acceptable standards of care, as these outcomes are undesirable for beneficiaries and the Medicare program. This incentive would discourage inappropriate cost reductions by penalizing agencies with unacceptable rates of adverse events. A pay-for-performance incentive should be linked to actual changes in quality, rather than nominal changes that reflect changes in coding practices.

Linking payments to outcomes in home health care is particularly appropriate because of wide variation in the level of home health resources patients receive. By holding providers accountable for particular outcomes, the adverse event measures would set more specific expectations for home health care than those currently in effect and would serve as a tool for holding agencies accountable for an appropriate standard of care.

The Commission believes that both the financial measures and the quality-of-care measures need to be implemented, but it is critical that the rebasing for 2011 include a proposal for financial safeguards. The quality incentives should be implemented as soon as possible,

but the proposal of the financial safeguards should take precedence and be concurrent with the rebasing.

IMPLICATIONS 2E-3

Spending

- Small administrative cost for study.

Beneficiary and provider

- No impact on access to care or provider willingness to serve beneficiaries is expected.

Future refinements to the home health benefit

Physicians have a unique role in home health care because they are responsible for determining whether a beneficiary meets the eligibility standards for home health services. Providing authority to an individual outside the HHA can prevent an agency's financial self-interest from influencing the eligibility decision, but there is some uncertainty about how well physicians enforce the eligibility criteria in practice. A 2001 study by the Office of Inspector General found a gap in physicians' comprehension of Medicare requirements (OIG 2001). For example, about 38 percent of physicians reported that they were unclear about Medicare's definition of homebound, and 50 percent reported that they did not completely understand the skilled need requirement for home care.

In 2008, CMS considered two changes to physician involvement in home health supervision. The first—reducing the payments for completing home health certification paperwork—was driven by a concern that physicians were not spending the expected time completing paperwork. Lowering payment was a curious approach for an activity the program seeks to encourage, and this change was rejected. The second change would have required a physician to personally examine a patient when certifying a patient's eligibility for home health care (CMS 2008b). This change was also not implemented, but these concerns suggest that the value of the physician certification process could be improved.

In addition to certifying eligibility, the Medicare statute requires that home health care be delivered while a beneficiary is under a physician's care. The physician is supposed to act as a care manager for a beneficiary in home health care, reviewing the quality of care

provided by the agency and adjusting the plan of care as a beneficiary's needs change (AMA 2007). However, the effectiveness of the physician's care manager role in home health care has not been formally assessed. There is no requirement that a physician see the home health patient before, during, or after the home health episode, although most—but not all—beneficiaries visit a doctor during their episode (OIG 2001, Wolff et al. 2008). Examining the role of outpatient care during an episode may provide insights for policy changes to strengthen the role of physicians for home health beneficiaries.

The challenges for physician care vary depending on whether the beneficiary was admitted to home health care while residing in the community or after a hospitalization. Post-hospital episodes have risks associated with a beneficiary's transition from the hospital to the community after a major acute health incident, while the risks of a community-admitted patient reflect the challenges associated with maintaining a frail geriatric patient in the community. Further, some patients remain in home health care for years. Medicare's current policies for physician participation in home health care do not address the different needs of these populations. Encouraging physician accountability for effective use of the home health benefit may require approaches that reflect the needs of the diverse circumstances of patients. In the coming year, the Commission will examine the current requirements and incentives for physician participation in home health care to see if opportunities exist to improve them.

There are important similarities between these issues and concerns about the Medicare hospice benefit. Both the hospice and the home health benefits rely on physicians to certify beneficiaries as eligible for these services and to play a role in managing care for beneficiaries during an episode. For these reasons, ensuring adequate physician involvement is critical for the integrity and quality of both benefits. The Commission has made several recommendations in this report about hospice care, and similar opportunities may exist in home health care.

Many physicians have financial relationships with the HHAs where they refer patients, as it is common for agencies to hire physicians as medical directors. These financial ties may improve patient care, but they may also create conflicts between the commercial interests of HHAs and physicians' obligation to do what is best for their patients. The Commission has recommended public reporting of physicians' financial ties to drug and device manufacturers as well as physicians' investment in Medicare providers (including HHAs). Given the close relationships between many physicians and HHAs, it may be reasonable to expand these recommendations to include public reporting of physicians' financial relationships with HHAs (in addition to investment). Over the next year, the Commission plans to review existing financial disclosure practices for financial relationships between physicians and HHAs and assess the value of expanding our recommendations for disclosure to include them. ■

Endnotes

- 1 Our geographic measure of access is based on data collected and maintained as part of CMS's Home Health Compare database as of October 2008. The service areas listed in the database are postal ZIP codes where an agency provided service in the past 12 months. This definition may overestimate access because agencies need not serve the entire ZIP code to be counted as serving it. On the other hand, this definition may underestimate access if HHAs are willing to serve certain ZIPs but did not receive any requests from those areas in the preceding 12 months.
- 2 The Commission has noted the risk adjustment for Home Health Compare may not be adequately adjusting for the differences in severity between the caseloads of individual HHAs. The comparison in this section focuses on national level data, and in this case the risk adjustment is accounting for aggregate changes in the population.
- 3 In previous March reports the Commission has included a measure of unplanned emergent care use. However, due to inconsistent coding by HHAs this measure appears to be understated.

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SECTION
2F

**Inpatient rehabilitation
facility services**

R E C O M M E N D A T I O N

The update to the payment rates for inpatient rehabilitation facility services should be eliminated for fiscal year 2010.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

SECTION 2F

Inpatient rehabilitation facility services

Section summary

Hospitals and rehabilitation units within hospitals that provide intensive inpatient rehabilitation services—such as physical, occupational, and speech therapy—are called inpatient rehabilitation facilities (IRFs). To be eligible for Medicare-covered treatment in an IRF, beneficiaries must generally be able to tolerate and benefit from three hours of therapy per day. Medicare fee-for-service (FFS) beneficiaries account for the majority of IRF discharges—more than 60 percent. Between 2006 and 2007, Medicare FFS expenditures for IRF services declined from about \$6.3 billion to about \$6.0 billion. This decrease is the result of a decline in Medicare FFS IRF discharges largely stemming from continued adjustment to the 75 percent rule (now capped at 60 percent) and increased Medicare Advantage enrollment. Medicare FFS spending for IRF services is projected to be \$5.8 billion annually in 2008 and 2009 and then is projected to increase as Medicare enrollment growth accelerates.

With the beginning of the IRF prospective payment system (PPS) in 2002, the number of facilities, volume of cases, costs and payments

In this section

- Where are IRFs located?
- Are Medicare payments adequate in 2009?
- How should Medicare payments change in 2010?

per case, and profitability of IRFs increased. In 2004, CMS found that few IRFs met the Medicare requirement in place at the time—that 75 percent of patients must present with 1 of 10 (later changed to 13) clinical conditions requiring inpatient rehabilitation, the so-called “75 percent rule.” As a result, CMS published a rule that phased in the compliance threshold gradually from 50 percent to 75 percent over several years, which would have been fully implemented on July 1, 2008. This change in policy is the principal reason the volume of Medicare FFS patients admitted to IRFs has declined since 2004. In December 2007, the Congress rolled back the 75 percent rule, capping the compliance threshold permanently at 60 percent, in one of several provisions of the Medicare, Medicaid, and SCHIP Extension Act of 2007 (MMSEA) addressing IRFs. (For ease of reference, we continue to refer to this requirement as the “75 percent rule” because, for most of the period covered by our data analysis, IRFs operated under the belief that the threshold was being phased in to eventually reach 75 percent.)

To assess the adequacy of Medicare’s payments for IRF services, we examined the following factors:

- ***Supply of facilities and number of beds***—After increasing modestly in the early years of the PPS, the supply of IRFs declined slightly in 2006 and 2007, by about 0.6 percent and 1.8 percent, respectively. The number of IRF beds increased at an average rate of 1.9 percent per year from 2001 to 2004, followed by an average decrease of 1.2 percent per year from 2004 to 2007. The drop in the numbers of facilities and beds in recent years has been less than the decrease in IRF discharges, suggesting that capacity remains adequate to meet demand. The aggregate total IRF occupancy rate decreased from 67 percent in 2004 to 61 percent in 2007.
- ***Volume of services and beneficiaries’ access to care***—Between 2002 and 2004, the proportion of Medicare FFS beneficiaries admitted to IRFs increased by an average 4.4 percent per year and then declined from 2004 to 2007 by an average 7.5 percent per year. FFS admissions declined in 2007, but at a slower rate than in previous years. The types of

patients treated by IRFs in 2006 and 2007 were generally more complex than those who were admitted to alternative settings. While we have no way to evaluate whether individual patients are receiving care in the most appropriate settings, an assessment of hospital discharge patterns to post-acute care suggests that beneficiaries who no longer qualified for admission to IRFs as a result of the 75 percent rule were able to obtain rehabilitation care in other settings.

- **Quality**—From 2004 to 2008, IRF patients' functional improvement between admission and discharge has increased, suggesting improvements in quality. However, changes over time in patient mix make it difficult to draw definitive conclusions about quality trends.
- **Access to capital**—Because of the onset of the economy-wide credit crisis in 2008, access to capital is constrained. As a result, some IRFs may face increased capital costs or delayed access to capital. Since the dramatic changes in the credit markets are unrelated to changes in Medicare payments, current access to capital may not be a good indicator of Medicare payment adequacy.
- **Payments and costs**—With introduction of the IRF PPS in 2002, payments per case rose rapidly, while growth in costs per case remained low in 2002 and 2003. Renewed implementation and phase-in of the 75 percent rule resulted in growth in costs per case accelerating between 2004 and 2006 as case mix increased and the volume of cases declined. Growth in cost per case slowed somewhat in 2007. The IRF aggregate Medicare margin for 2007 is 11.7 percent.

Our indicators of Medicare payment adequacy on net are more positive than negative. Capacity remains adequate to meet demand. Although the 75 percent rule has had significant impacts on IRF volume, this decline was consistent with the overall policy goal of the rule—to direct the most clinically appropriate types of cases to this intensive, costly setting. Our projected 2009 aggregate Medicare margin is 4.5 percent, down from 11.7 percent in 2007. To the extent that IRFs restrain their cost growth in

response to the MMSEA’s elimination of the IRF update between 2007 and 2009 or the decline in discharges in recent years, the projected 2009 margin would be higher than we have estimated. On the basis of these analyses, we believe that IRFs could absorb cost increases and continue to provide care to clinically appropriate Medicare cases with no update to payments in 2010. We will closely monitor indicators within our update framework as we develop our recommendation for the IRF payment update in the next fiscal year. ■

Recommendation 2F

COMMISSIONER VOTES:

YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

The update to the payment rates for inpatient rehabilitation facility services should be eliminated for fiscal year 2010.

Background

After an illness, injury, or surgery, some patients receive intensive inpatient rehabilitation services—such as physical, occupational, or speech therapy—in an inpatient rehabilitation facility (IRF). IRFs may be specialized freestanding hospitals or specialized units within an acute care hospital. Relatively few Medicare beneficiaries use these services because they must generally be able to tolerate and benefit from three hours of therapy per day to be eligible for treatment.

Medicare is the principal payer for IRF services, accounting for more than 60 percent of discharges. About 338,000 fee-for-service (FFS) beneficiaries (nearly 1 percent of total FFS beneficiaries) received care in IRFs in 2007. Medicare FFS expenditures on inpatient rehabilitation services were nearly \$6.0 billion in 2007, down from about \$6.3 billion in the prior fiscal year. This decrease in Medicare FFS spending on IRFs in 2007 is the result of a decline in Medicare FFS IRF discharges largely stemming from continued adjustment to the 75 percent rule (now 60 percent) and increased Medicare managed care enrollment.

To qualify as an IRF for Medicare payment, facilities must meet the Medicare conditions of participation for acute care hospitals. They also must meet the following criteria:

- have a preadmission screening process to determine that each prospective patient is likely to benefit significantly from an intensive inpatient rehabilitation program;
- use a coordinated multidisciplinary team approach that includes rehabilitation nursing, physical and occupational therapists, and speech and language pathologists;
- have a medical director of rehabilitation, with training or experience in rehabilitating patients, who provides services in the facility on a full-time basis for freestanding facilities or at least 20 hours per week for rehabilitation units; and
- have no fewer than 60 percent of all patients admitted with at least 1 of 13 conditions (as a primary diagnosis or comorbidity), such as stroke or hip fracture.^{1,2} This requirement was previously on a phased-in trajectory to require that 75 percent of IRF patients meet these

criteria by July 1, 2008. However, the Medicare, Medicaid, and SCHIP Extension Act of 2007 (MMSEA) rolled back the 75 percent rule in 2007, capping the compliance threshold permanently at 60 percent (see discussion of the 75 percent rule in the text box (pp. 212–213)).³ (For ease of reference, this rule is referred to as the “75 percent rule” throughout this document.)

Before January 2002, IRFs were paid under the Tax Equity and Fiscal Responsibility Act of 1982, on the basis of their average costs per discharge, up to an annually adjusted facility-specific limit. The Balanced Budget Act of 1997 required the implementation of a prospective payment system (PPS) for IRFs. In January 2002, IRFs began to be paid predetermined per discharge rates based primarily on patient characteristics, the facility’s wage index, and certain facility characteristics. As of 2004, all IRFs were paid under the new IRF PPS. (For more details on the IRF PPS, see http://www.medpac.gov/documents/MedPAC_Payment_Basics_08_IRF.pdf.)

Where are IRFs located?

In 2007, IRFs existed in every state and the District of Columbia (Figure 2F-2, p. 214). There are more IRFs in some regions of the country than others. In general, states in the eastern and south-central portions of the country have more IRFs than western states. The five states with the largest number of IRFs in 2007 were Texas, Pennsylvania, California, New York, and Ohio—all states among the largest in population. The states (including the District of Columbia) with the fewest IRFs were Hawaii (one IRF) and Maryland, Vermont, and the District of Columbia (two IRFs each).

The number of IRF beds per 100,000 Medicare beneficiaries provides a measure of IRF capacity relative to the size of a state’s Medicare population. Most states (32) had between 51 and 110 IRF beds per 100,000 Medicare beneficiaries in 2007 (Figure 2F-3, p. 215). The District of Columbia, Louisiana, Arkansas, and Nevada had the most IRF beds per 100,000 beneficiaries, ranging from 149 to 206. Eight states had 50 or fewer IRF beds per 100,000 beneficiaries: Maryland, Oregon, Connecticut, Hawaii, Alaska, Vermont, Wyoming, and Washington.

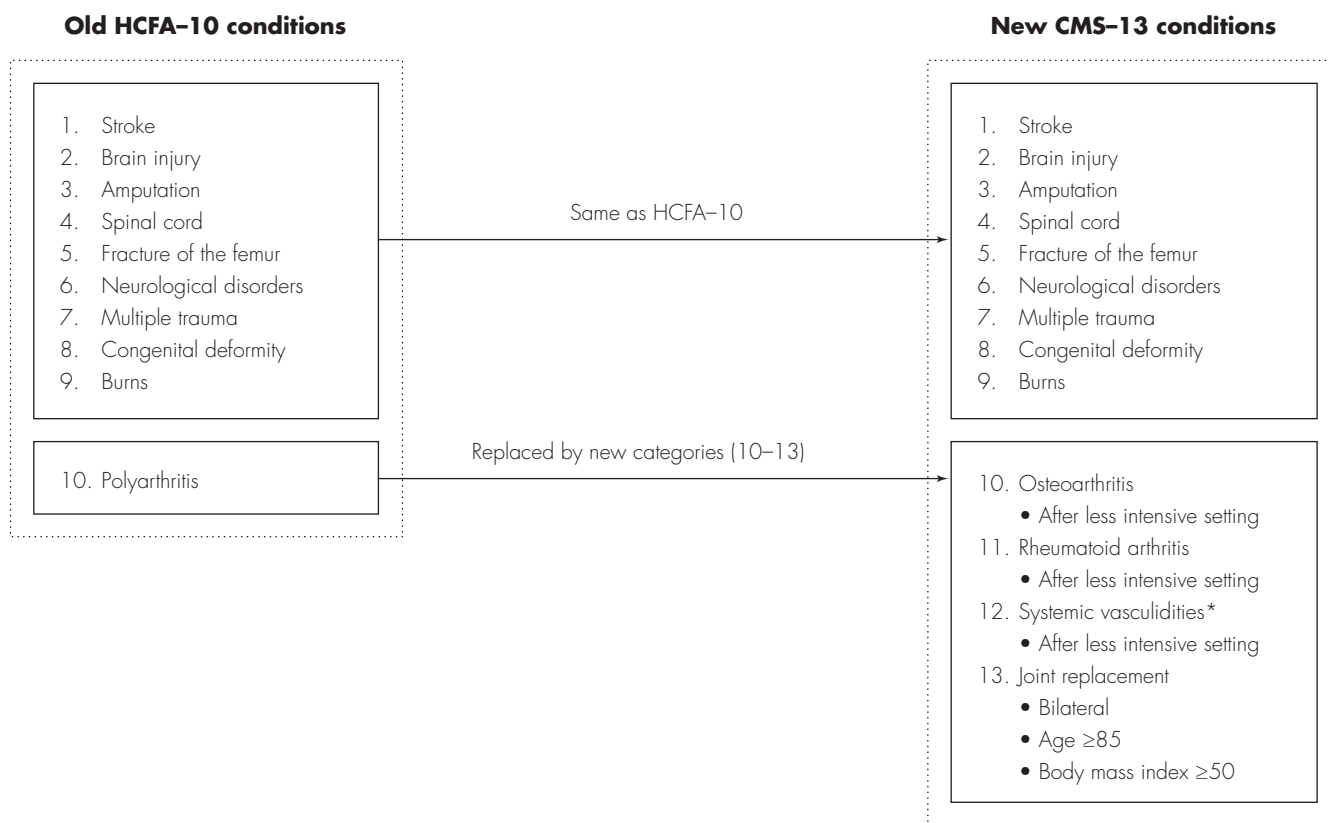
The 75 percent rule for inpatient rehabilitation facilities

The intent of the 75 percent rule is to distinguish inpatient rehabilitation facilities (IRFs) from acute care hospitals in terms of primarily serving patients who are clinically appropriate for the level of care IRFs provide. For 20 years, from 1984 to 2004,

the diagnoses included in the 75 percent rule were the same and were known as the Health Care Financing Administration–10 (HCFA–10) (Figure 2F-1).⁴ In 2002, CMS discovered that its contracted fiscal intermediaries were using inconsistent methods to enforce the 75

**FIGURE
2F-1**

Change in the inpatient rehabilitation facility criteria



Note: HCFA-10 (Health Care Financing Administration-10).

*Systemic vasculidities are relatively rare inflammations of the arteries, frequently autoimmune, that involve a variety of systems, including joints.

Are Medicare payments adequate in 2009?

We examine the following factors in determining the adequacy of Medicare payments to IRFs:

- supply of facilities;
- volume of services and beneficiaries' access to care;
- quality;
- access to capital; and
- payments and costs, focusing on the costs efficient providers incur, pursuant to a specific mandate of the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA).

The 75 percent rule for inpatient rehabilitation facilities (cont.)

percent rule and that many IRFs did not comply with the rule. As a result, CMS suspended enforcement of the rule until the agency could examine it and determine whether the regulation should be modified.

In 2004, CMS redefined the arthritis conditions that count toward the 75 percent rule, by specifying three precise types of arthritis. In addition, CMS clarified that only a subset of major joint replacement patients (the largest category of IRF patients in 2004) would count toward the 75 percent rule. These changes contributed to the reduction in the volume of patients admitted to IRFs since 2004. At the same time, the average case mix of IRF patients increased because IRFs admitted fewer joint replacement patients and other types of patients who did not count toward the 75 percent rule, who tend to be less clinically complex than other IRF patients.

CMS created a four-year transition period for IRFs' compliance with the revised 75 percent rule. The Deficit Reduction Act of 2005 (DRA) added a year to the transition. As amended by the DRA, the policy was:

- 50 percent of the IRFs' total patient population must meet the revised regulations in cost reporting years beginning on or after July 1, 2004, through June 30, 2005;
- 60 percent in cost reporting years beginning on or after July 1, 2005, through June 30, 2007; and

- 65 percent in cost reporting years beginning on or after July 1, 2007, through June 30, 2008.

For cost reporting periods beginning on or after July 1, 2008, the threshold was scheduled to return to 75 percent. However, the Medicare, Medicaid, and SCHIP Extension Act of 2007 rolled back the compliance threshold to 60 percent and capped it at that level permanently. It also made permanent, via statute, the CMS discretionary policy of allowing IRFs to count patients toward the compliance threshold if they had comorbidities (rather than primary diagnoses) that were among 1 of the 13 qualifying conditions.

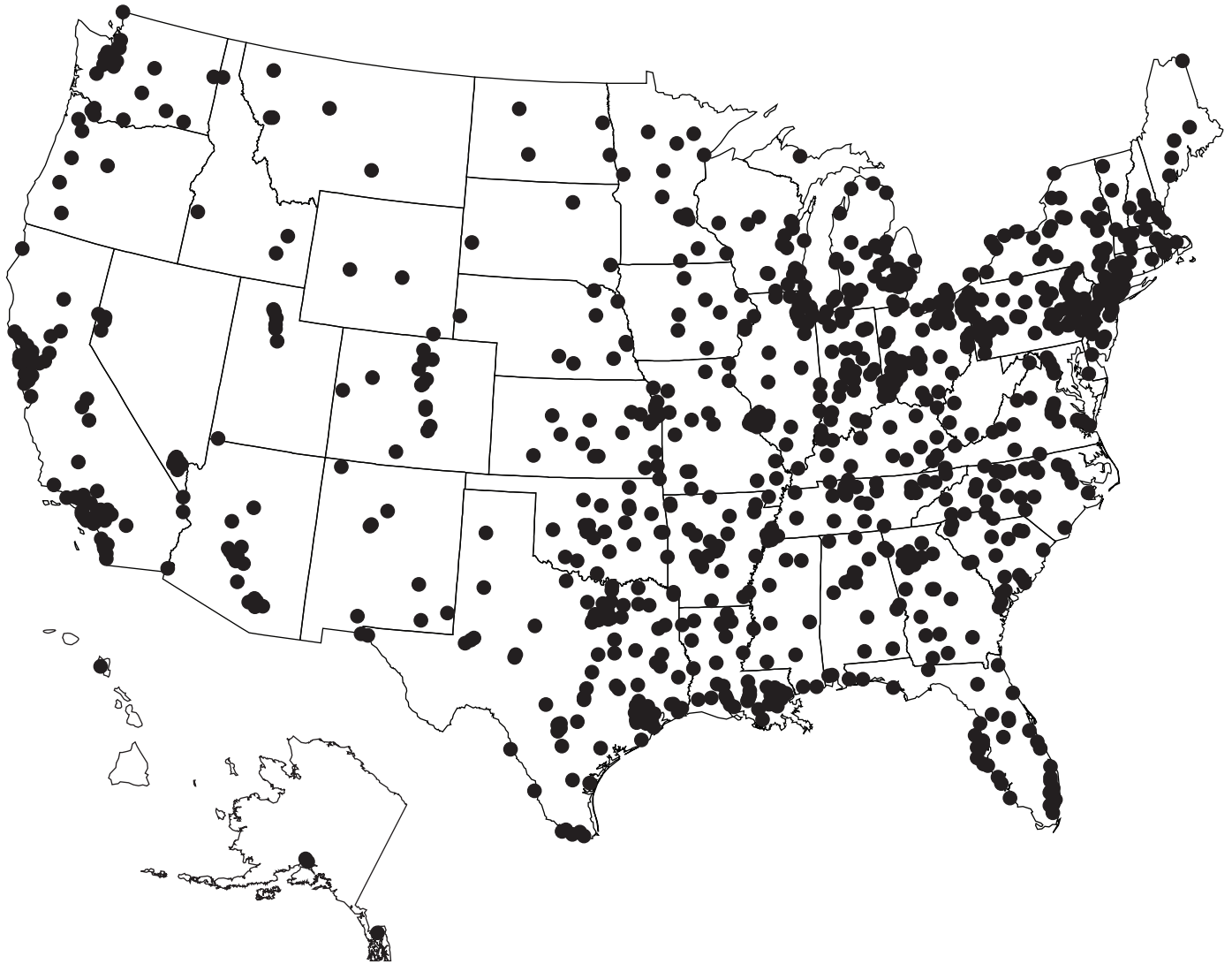
The renewed enforcement of the 75 percent rule was controversial. Even though a 75 percent rule has been in place since 1984, CMS did not consistently enforce it, as noted earlier. The revised rule categorized large classes of admissions as not appropriate for IRF care. In particular, CMS concluded that most joint replacement patients (the largest category of IRF patients in 2004) did not need the intensive rehabilitation services IRFs provided and could receive rehabilitation services from alternative providers, such as acute care hospitals, skilled nursing facilities, long-term care hospitals, outpatient rehabilitation providers, and home health agencies. IRFs not in compliance with the revised rule would be declassified as an IRF and paid acute inpatient prospective payment system (PPS) rates for all cases, which generally are much lower than IRF PPS rates.⁵ ■

Overall, our indicators of Medicare payment adequacy are more positive than negative. The number of IRFs increased after the PPS was implemented in 2002 through 2005 but decreased slightly in 2006 and 2007. The number of IRF beds also decreased modestly from 2004 to 2007. However, the decrease in the number of facilities and number of beds has not been as large as the decrease in discharges. After PPS began, the volume of cases and Medicare spending grew rapidly, with both cases and spending per case increasing by roughly 6.5 percent annually from 2002 to 2004. From 2004 to 2007, the volume of cases dropped, although Medicare spending per case increased, consistent with the increase in patient complexity.

We have no direct indicators of beneficiaries' access to care because there are no surveys specific to this population and because some patients who could receive care in IRFs can be treated in other settings. While we have no way to assess whether individual patients are receiving care in the most appropriate setting, an assessment of hospital discharge patterns to post-acute care suggests that beneficiaries who are not receiving treatment in IRFs as a result of the 75 percent rule are able to obtain rehabilitation care in other settings. Improvements in functional independence between IRF admission and discharge increased from 2004 to 2008, suggesting improvements in quality, although changes in patient mix over time make it difficult to draw a definitive

**FIGURE
2F-2**

Geographic distribution of IRFs, 2007



Note: IRF (inpatient rehabilitation facility).

Source: MedPAC analysis of Medicare cost report data from CMS for 2007.

conclusion about quality. Access to capital tightened in 2008 because of the economy-wide credit crisis; however, changes in the credit market are not related to Medicare payment changes. The IRF aggregate Medicare margin in 2007 is 11.4 percent.

The supply of providers and beds decreased modestly in recent years

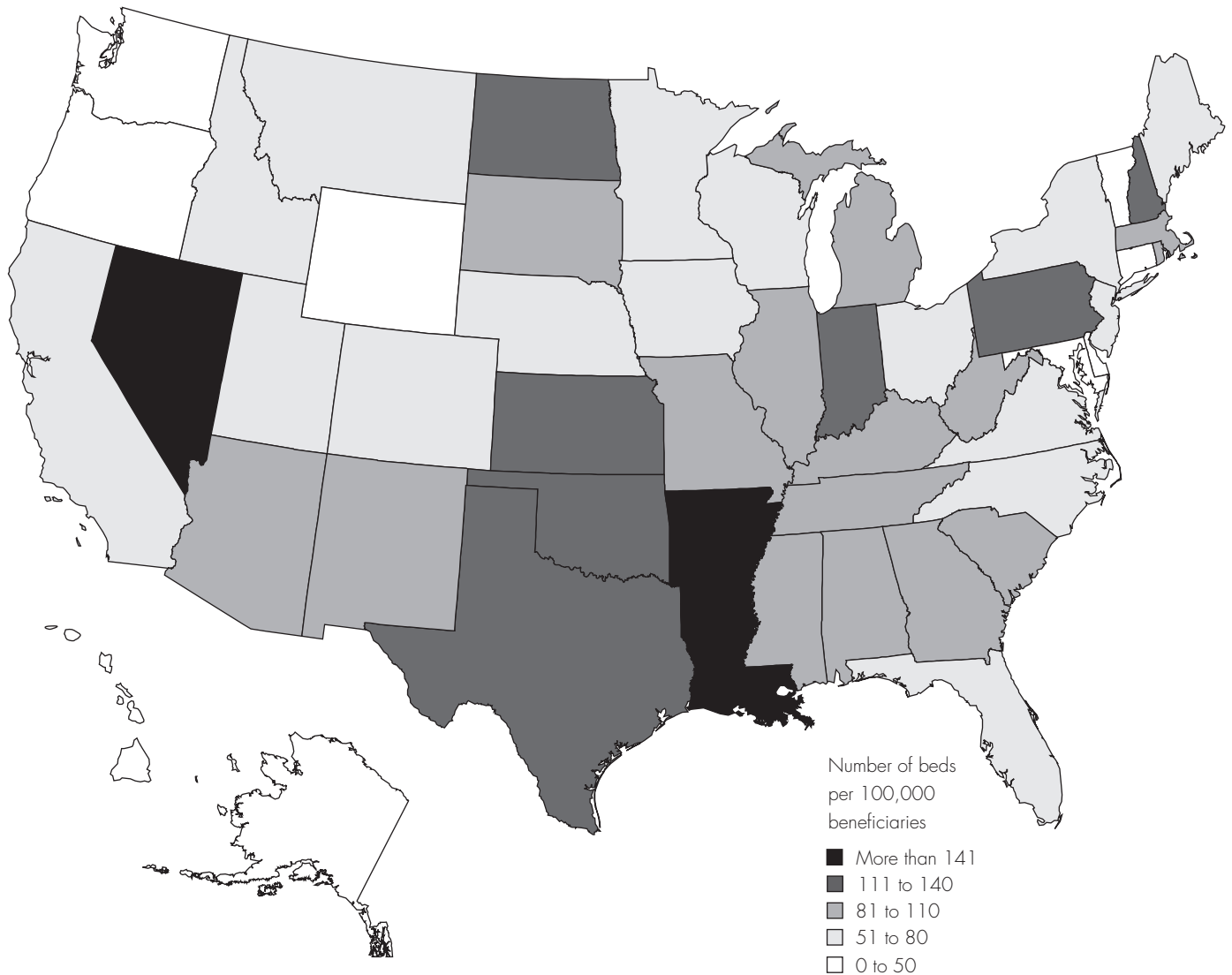
After the PPS was implemented in 2002, the supply of IRFs increased an average 1.2 percent per year from 2002 to 2005 (Table 2F-1, p. 216). In 2006 and 2007, the

number of IRFs declined slightly, about 0.6 percent and 1.8 percent, respectively. In 2007, the total number of IRFs remained slightly higher than the number of IRFs in existence at the outset of the PPS in 2002.

In 2007, the number of most IRF provider types (rural, urban, nonprofit, for profit, and hospital based) declined slightly, with the exception of freestanding and government IRFs, which increased. Trends in the number of IRFs by type varied more in prior years. From 2002 to 2006, the number of rural IRFs grew at a higher rate than other types

**FIGURE
2F-3**

IRF beds per 100,000 Medicare beneficiaries, 2007



Note: IRF (inpatient rehabilitation facility).

Source: MedPAC analysis of Medicare cost report data from CMS for 2007.

of IRFs, perhaps fueled by the 21.3 percent rural payment adjustment under the PPS and the ability of critical access hospitals to begin operating IRF units in 2004.⁶

Changes in the number of IRFs categorized by ownership also show different patterns of growth. In the initial years of the PPS, the number of for-profit IRFs grew at more than three times the pace of nonprofit IRFs. From 2002 to 2005, for-profit IRFs grew at about 3 percent per year, before declining by about 2 percent in 2006 and 3.7 percent in 2007. The number of nonprofit IRFs grew by 1 percent

annually from 2002 to 2004 and then declined by 1 percent to 2 percent annually from 2005 to 2007.

The supply of IRFs presents a partial picture of Medicare beneficiary access to IRF services. Rehabilitation hospitals may have responded to the renewed enforcement of the 75 percent rule by reducing the number of beds they operated, either by closing down beds or by using dedicated IRF rooms for other inpatient purposes, as would be expected in the face of declines in volume. Such changes could also affect beneficiary access. After increasing an average 1.9 percent per year from 2001 to 2004, the total number of

**TABLE
2F-1**

The total number of IRFs rose slightly from 2002 to 2005 but declined slightly in 2006 and 2007

Type of IRF	TEFRA		PPS					Average annual percent change		
	2001	2002	2003	2004	2005	2006	2007	2002-2005	2005-2006	2006-2007
All IRFs	1,157	1,188	1,211	1,227	1,231	1,224	1,202	1.2%	-0.6%	-1.8%
Urban	971	988	1,001	1,009	1,000	969	953	0.4	-3.1	-1.7
Rural	186	200	210	218	231	255	249	4.9	10.4	-2.4
Freestanding	214	215	215	217	217	217	219	0.3	0.0	0.9
Hospital based	943	973	996	1,010	1,014	1,007	983	1.4	-0.7	-2.4
Nonprofit	733	755	765	772	765	757	740	0.4	-1.0	-2.2
For profit	271	277	290	294	305	299	288	3.3	-2.0	-3.7
Government	153	156	156	161	161	168	174	1.1	4.3	3.6

Note: IRF (inpatient rehabilitation facility), TEFRA (Tax Equity and Fiscal Responsibility Act of 1982), PPS (prospective payment system).

Source: MedPAC analysis of Provider of Services files from CMS.

IRF beds decreased an average 1.2 percent per year from 2004 to 2007 (Table 2F-2). However, this decrease in the number of IRF beds was less than the decrease in the number of discharges (discussed later), suggesting that capacity remains adequate to meet demand. The effects of the change in the number of IRF beds and IRF patients are evident in IRF occupancy rates. Between 2004 and 2007, the aggregate IRF occupancy rate (for all patients, not specific to Medicare) declined from 67 percent to 61 percent, based on our analysis of Medicare cost report data.

Although IRF patient volume declined, access to care appears to be adequate

From 2002 to 2004, Medicare spending for IRF services grew by almost 7 percent per year, reaching more than \$6.4 billion in 2004 before declining in 2007 to just under \$6.0 billion (Table 2F-3).⁷

The number of unique FFS beneficiaries admitted to IRFs and the number of IRF cases also increased rapidly from

**TABLE
2F-2**

Fewer rehabilitation beds have been available in recent years

Type of bed	2001	2002	2003	2004	2005	2006	2007	Average annual change	
								2001-2004	2004-2007
Beds, freestanding hospitals	12,760	13,355	13,513	13,523	13,137	12,840	12,917	2.1%	-1.5%
Beds, hospital-based rehabilitation units	22,356	23,098	23,272	24,026	24,157	23,929	23,270	1.8	-1.1
Total inpatient rehabilitation beds	35,115	36,453	36,785	37,549	37,294	36,769	36,187	1.9	-1.2

Note: Counts exclude data from Maryland, non-U.S. hospitals, and outliers. Number of beds is calculated by taking the total number of available bed days for all patients (not specific to Medicare) divided by the total number of days in the cost reporting period.

Source: MedPAC analysis of Medicare cost report data from CMS.

**TABLE
2F-3**

The number of IRF cases has declined since 2004, while payments per case have increased

	TEFRA		PPS					Average annual change	
	2001	2002	2003	2004	2005	2006	2007	2002-2004	2004-2007
Medicare spending (in billions)	\$4.51	\$5.65	\$6.16	\$6.43	\$6.40	\$6.29	\$5.95	6.7%	-2.6%
Unique beneficiaries	N/A	398,000	435,000	451,000	410,000	369,000	338,000	6.5	-9.2
IRF patients per 10,000 FFS beneficiaries	N/A	114	121	124	112	103	98	4.4	-7.5
Cases	415,579	439,631	478,723	496,695	449,321	404,255	370,048	6.3	-9.3
Payment per case	\$9,982	\$11,152	\$12,952	\$13,275	\$14,248	\$15,354	\$16,143	9.1	6.7
ALOS (in days)	14.0	13.3	12.8	12.7	13.1	13.0	13.2	-2.3	1.3

Note: IRF (inpatient rehabilitation facility), TEFRA (Tax Equity and Fiscal Responsibility Act of 1982), PPS (prospective payment system), N/A (not available), FFS (fee-for-service), ALOS (average length of stay).

Source: MedPAC analysis of MedPAR data from CMS, and data on aggregate Medicare spending for IRF services from the CMS Office of the Actuary.

2002 to 2004 and then began to decline in 2005. From 2002 to 2004, the number of unique FFS beneficiaries using IRFs increased by an average 6.5 percent annually but decreased between 2004 and 2007 by an average 9.2 percent per year. After we adjust for decreases in FFS enrollment reflecting increased enrollment in Medicare Advantage, the decline in the number of FFS beneficiaries using IRFs from 2004 to 2007 averaged 7.5 percent per year. This decline in IRF use largely resulted from IRFs' adjustment to the 75 percent rule. In addition, increased medical review of IRF claims by CMS contractors may also have influenced IRF admissions practices and contributed to the decline in IRF admissions.⁸

Because the MMSEA permanently capped the 75 percent rule at 60 percent beginning July 1, 2007, we do not anticipate continued dramatic reductions in IRF utilization attributable to the rule in the future. In 2007, the rate of IRF use among FFS beneficiaries (i.e., number of IRF patients per 10,000 FFS beneficiaries) continued to decline but at a slower pace than in previous years, suggesting that the rule's effects were leveling off. Specifically, between 2004 and 2006, the IRF use rate declined an average 9 percent per year, compared with 5 percent in 2007.

Between 2002 and 2004, payments per case increased at an average annual rate of 9.1 percent and further increased

between 2004 and 2007 at an average rate of 6.7 percent per year. The payment increases between 2004 and 2007 generally reflect the increasing complexity of IRFs' patient mix as less complex patients were treated in other settings.

From 2002 to 2004, the average length of stay in IRFs declined, consistent with implementation of the new IRF PPS. From 2004 to 2005, the average length of stay increased from 12.7 days to 13.1 days; the average length of stay has remained relatively stable since then at 13 days in 2006 and 13.2 days in 2007. The increased length of stay is consistent with the increased average complexity of patients treated in IRFs since 2004.

The most common rehabilitation conditions for Medicare beneficiaries for 2004 to 2008 are shown in Table 2F-4 (p. 218). The types of cases treated in IRFs have shifted over this period. The most frequent rehabilitation diagnoses changed from major joint replacement in 2004 to stroke in 2008. In 2004, major joint replacement patients made up about 24 percent of IRF cases; by 2008, these patients represented 13 percent of cases. In contrast, stroke patients made up less than 17 percent of IRF cases in 2004, but by 2008 they made up nearly 21 percent. Fractures of the lower extremity (hip fractures) have become the second most common type of IRF case, representing 16 percent

**TABLE
2F-4****Most common types of cases in inpatient rehabilitation facilities**

Type of case	2004	2005	2006	2007	2008
Stroke	16.6%	19.0%	20.3%	20.8%	20.5%
Fracture of the lower extremity	13.1	15.0	16.1	16.4	16.3
Major joint replacement	24.0	21.3	17.8	15.0	13.2
Debility	6.1	5.8	6.2	7.7	9.1
Neurological disorders	5.2	6.2	7.0	7.8	7.9
Brain injury	3.9	5.2	6.0	6.7	6.9
Other orthopedic conditions	5.1	5.1	5.2	5.5	5.8
Cardiac conditions	5.3	4.2	4.0	4.2	4.6
Spinal cord injury	4.2	4.5	4.6	4.6	4.3
Other	16.4	13.8	12.8	11.3	11.4

Note: Other includes conditions such as amputations, major multiple trauma, and pain syndrome. Numbers may not sum to 100 percent due to rounding.

Source: MedPAC analysis of Inpatient Rehabilitation Facility–Patient Assessment Instrument data from CMS for 2004, 2005, 2006, 2007, and January 1 through June 30, 2008.

of IRF cases in 2008. The total number of stroke and hip fracture patients admitted to IRFs has remained relatively steady over the period from 2004 to 2008; however, these diagnoses now make up a greater share of IRF cases because the total number of IRF cases has declined.

The types of patients being treated in IRFs after renewed enforcement of the 75 percent rule are more complex than those who shifted to alternative settings. Cases that did not meet the criteria of the 75 percent rule were less complex as measured by the IRF PPS relative payment weights than cases that did meet the criteria, according to eRehabData[®] from 2004 to 2008 (eRehabData 2008).⁹ For example, according to clinical protocols eRehabData uses to ascertain whether a claim is likely to be counted toward the 75 percent rule, the relative payment weight for cases that met the 75 percent rule in 2004 was on average about 1.4, compared with about 1.0 for cases that did not count toward the rule. eRehabData also provides information on how IRFs' compliance with the 75 percent rule changed over time. On the basis of eRehabData, 45 percent of Medicare cases counted toward the 75 percent rule in 2004, 56 percent in 2005, 60 percent in 2006, 61 percent in 2007, and 62 percent in the first half of 2008 (eRehabData 2008).¹⁰ With the 75 percent rule threshold permanently capped at 60 percent beginning in July 2007, we would expect to see case-mix growth related to the 75 percent rule leveling off. According to our analysis of the Inpatient Rehabilitation Facility–Patient Assessment Instrument (IRF–PAI) data, IRFs experienced an overall

1.8 percent increase in Medicare case mix from the first half of calendar year 2007 to the first half of 2008. This growth in case mix for 2008 is moderate and consistent with what we would expect as adjustment to the 75 percent rule nears completion.

We have no direct measures of beneficiaries' access to care. The decrease in IRF discharges is difficult to interpret because it is not possible to identify beneficiaries who would have received care in an IRF but for the 75 percent rule. If patients who need intensive rehabilitation are able to obtain this care in other settings, the reduction in IRF volume—while significant—may not constitute an access problem. To draw inferences about the effects of the 75 percent rule on the access to care, we analyzed changes in post-hospital discharge destinations for patients likely to need rehabilitation. We examined Medicare acute care hospital inpatient claims to identify the discharge destinations for the 10 conditions that had the highest number of discharges to IRFs in 2003.¹¹ Although these conditions represented a significant share of IRFs' volume, most beneficiaries with these conditions are treated in other post-acute settings. Of the acute care hospital cases in these 10 diagnosis related groups (DRGs), only about 9 percent were discharged to IRFs in 2007. We analyzed how the discharge destination of cases in these DRGs changed between 2004 and 2007. Two conditions—major joint replacement of the lower extremity and stroke—illustrate how IRFs' admitting patterns changed over this time period (Table 2F-5).

**TABLE
2F-5**

Share of hospital discharges to IRFs declined for hip and knee replacements, but remained stable for stroke

DRG	Discharge destination	Percent of DRG				Percentage point change in DRG share	
		2004	2005	2006	2007	2004-2006	2006-2007
Major joint replacement/hip and knee replacement	IRF	28%	24%	20%	16%	-8	-4
	SNF/swing bed	33	34	35	36	2	1
	Home health	21	25	27	29	6	2
	All other settings	18	18	18	19	0	1
Stroke	IRF	18	18	19	19	1	0
	SNF/swing bed	27	26	26	26	-1	0
	Home health	11	11	12	12	1	0
	All other settings	45	44	44	44	-1	0

Note: IRF (inpatient rehabilitation facility), DRG (diagnosis related group), SNF (skilled nursing facility). All other settings includes outpatient care, other inpatient facilities, or to home. Numbers (percent of DRG) may not sum to 100 percent due to rounding.

Source: MedPAC analysis of 2004-2007 hospital inpatient Medicare claims data from CMS.

The most significant shift in acute care hospital discharge destination and IRF admissions occurred with hip and knee replacements (DRG-209).¹² Between 2004 and 2006, the percentage of hip and knee replacement patients who were discharged to an IRF declined from 28 percent to 20 percent. In 2007, the share of these patients discharged to an IRF further dropped to 16 percent. During this time, corresponding increases occurred in the share of discharges to home health care and skilled nursing facilities (SNFs), which suggests that some patients who previously might have received rehabilitation care in an IRF are now receiving that care in other settings. Between 2004 and 2006, the share of discharges to home health care increased from 21 percent to 27 percent and further increased in 2007 to 29 percent. Between 2004 and 2006, the share of discharges to SNFs increased slightly from 33 percent to 35 percent and increased further in 2007 to 36 percent. Between 2006 and 2007, there was also a 1 percentage point increase in the share of discharges to other settings—predominantly discharges to home, possibly with outpatient therapy services. The decline in the share of hip and knee replacement patients discharged to IRFs is not surprising in light of the change to the 75 percent rule in 2004 that limited the types of hip and knee replacement patients who would count toward the threshold.¹³

By contrast, among stroke patients—a condition that CMS has continued to identify as appropriate for admission to IRFs, without qualifications—the share of hospital patients discharged to IRFs and other settings has remained largely unchanged. The percent of stroke patients (DRG-014) discharged to IRFs increased slightly between 2004 and 2006 from 18 percent to 19 percent, with the share of patients discharged to SNFs, home health care, and other settings also exhibiting very minimal change. In 2007, the share of stroke patients discharged to IRFs and other settings was essentially unchanged, suggesting that under the 75 percent rule IRFs were able to develop strategies to maintain or slightly increase their rates of admission of stroke patients.

The hip and knee replacement example illustrates the fact that declines in IRF admissions, even if attributable to the 75 percent rule, do not necessarily mean that Medicare beneficiaries are forgoing rehabilitation services. While many patients who need intensive rehabilitation are still able to obtain that care in other settings, it is difficult to assess whether rehabilitation care is comparable across settings in terms of quality, outcomes, and relative costliness. Patient assessment instruments (where they exist) are not comparable across post-acute care settings in their content or application. While Medicare requires three of the post-acute care settings to use patient

Summary of Section 115 of the Medicare, Medicaid, and SCHIP Extension Act of 2007

In December 2007, the Congress passed, and the President signed into law the Medicare, Medicaid, and SCHIP Extension Act of 2007 (MMSEA). Section 115 of the Act contained a number of provisions related to Medicare's prospective payment system for inpatient rehabilitation facility (IRF) services. Changes to the 75 percent rule were the most significant of the IRF-related provisions. The legislation capped the compliance threshold at 60 percent, retroactively effective for cost reporting periods beginning on or after July 1, 2007 (the compliance threshold at that time had been 65 percent, pursuant to the Deficit Reduction Act of 2005). The law also permitted IRFs to count patients toward the threshold if their secondary diagnoses are among the 13 criteria conditions, even if their primary diagnoses are not. This policy had been set to expire with full implementation of the 75 percent rule on July 1, 2008. Under the MMSEA legislation, both policies became permanent.

The legislation also set the update to the IRF base payment rates to zero for the last half of fiscal year 2008 and for all of fiscal year 2009. Absent this provision, the statutory update for IRFs is the market basket for rehabilitation, psychiatric, and long-term care hospitals.

Lastly, the MMSEA directed the Secretary of Health and Human Services to study access to IRF care under the 75 percent rule, including an examination of conditions that are treated in IRFs but that currently are not included in the 75 percent rule and an analysis of alternatives to or refinements of the 75 percent rule criteria, specifically with respect to patients' functional status, their diagnoses, and comorbidities. The Secretary is required to submit a report on these analyses to the Congress no later than 18 months after the date of enactment of the MMSEA. ■

assessment tools, each uses a different one.¹⁴ Although the existing tools measure the same broad aspects of patient care—functional status, diagnoses, comorbidities, and cognitive status—the time frames covered, the scales used to differentiate among patients, and the definitions of the care included in the measures vary considerably (MedPAC 2005).

The Commission previously observed that the lack of a common patient assessment instrument impedes analyses of comparative quality and cost of post-acute care across settings (MedPAC 2008, MedPAC 2007, MedPAC 2006, MedPAC 2005). The lack of comparability has precluded the development of patient assessment criteria that could help hospital discharge planners identify the most appropriate setting for each patient's post-acute care needs. (The MMSEA requires the Secretary of Health and Human Services to further study alternatives to the 75 percent rule that may better identify patients appropriate for treatment in IRFs; see text box.) As a result, from Medicare's perspective, the reasons for admitting patients to one post-acute care setting instead of another are not transparent and may reflect considerations such as the availability of a facility of a given type in a market,

relationships among acute and post-acute care providers in a market, or patient selection. Further, the lack of a common post-acute care patient assessment instrument precludes comparison of the outcomes across post-acute care settings. As a result, it is not possible to answer fundamental questions such as whether the higher cost of IRF care is warranted by better outcomes.

The Deficit Reduction Act of 2005 required CMS to implement a demonstration project under which the agency would develop and field a uniform post-acute care patient assessment instrument, with the goal of comparing patients and outcomes across settings to assess the potential to rationalize Medicare payments for post-acute care across settings. The common patient assessment instrument has been developed, and data collection began in early 2008. The corresponding final report is due in July 2011.

Quality indicators show improvement, but case-mix changes prevent definitive conclusions

Our indicators of quality of care provided by IRFs show some improvement from 2004 to 2008, although changes

in the mix of IRF patients over time make it difficult to ascertain whether it represents a true change in quality. To assess quality, we use a measure commonly tracked by the industry: the difference between admission and discharge scores for the Functional Independence Measure™ (FIM™) incorporated in the IRF–PAI. The 18-item FIM measures the level of disability in physical and cognitive functioning and the burden of care for patients’ caregivers (Deutsch et al. 2005). Scores for each item range from 1 (complete dependence) to 7 (independence). Scores on each of the 18 measures are summed to calculate a total FIM score, which can range from 18 to 126. To compare quality on a national basis, we use the average difference in scores at discharge versus admission for Medicare patients (commonly referred to as FIM gain)—a larger number indicates greater improvement in functional independence between admission and discharge. We report this measure in two ways. We compare differences for:

- all Medicare patients treated in an IRF
- the subset of Medicare patients who were discharged home from an IRF

Between 2004 and 2008, FIM gain between admission and discharge increased for all Medicare FFS IRF patients and the subset of patients who were discharged home (Table 2F-6). For all patients, FIM gain increased almost 2 points between 2004 and 2008, from 22.4 to 24.3. Among patients discharged home, FIM gain increased 3 points over this period, from 25.3 in 2004 to 28.1 in 2008.

While the increase in FIM gain over time may reflect an increase in IRF quality, differences in the mix of patients admitted to IRFs over the period make it difficult to ascertain. For FIM gain to accurately measure aggregate IRF quality over time, the functional status of patients at admission must be similar over time. Between 2004 and 2008, the average FIM score at admission for all Medicare IRF patients decreased nearly 7 points, from 68.0 in 2004 to 61.2 in 2008. This decline suggests that patients admitted to IRFs on average were more severely impaired in 2008 than in 2004. Despite the increase in FIM gain between 2004 and 2008, the average FIM score at discharge for all IRF patients and for IRF patients discharged home declined between 2004 and 2008. The decline in FIM scores at discharge would be expected if IRFs were admitting patients with more severe impairments and does not necessarily indicate a decrease in quality.

**TABLE
2F-6**

IRF patients’ functional gain has increased

	2004	2005	2006	2007	2008
All IRF patients					
FIM™ at admission	68.0	66.1	63.6	62.2	61.2
FIM™ at discharge	90.4	89.3	87.1	86.1	85.5
FIM™ gain	22.4	23.2	23.5	23.9	24.3
IRF patients discharged home					
FIM™ at admission	71.9	70.2	68.0	66.6	65.7
FIM™ at discharge	97.1	96.6	94.9	94.2	93.8
FIM™ gain	25.3	26.4	26.9	27.6	28.1

Note: IRF (inpatient rehabilitation facility), FIM™ (Functional Independence Measure™).

Source: MedPAC analysis of Inpatient Rehabilitation Facility–Patient Assessment Instrument data from CMS. Data are for January 1 through June 30 only.

Our analysis of the three diagnoses with the largest IRF volume—stroke, lower extremity fracture, and hip and knee replacement—shows the same pattern of FIM scores as for IRF patients as a whole. For each of these groups separately, FIM gain increased from 2004 to 2008, but FIM scores at both admission and discharge decreased during this period, which suggests that patient severity may have increased over time even within diagnosis groups. Because of the case-mix changes over time, evidence of quality improvements suggested by FIM gain remains inconclusive.

Access to capital has tightened

Because of the onset of the economy-wide credit crisis in 2008, access to capital is constrained. These external macroeconomic factors are not related to changes in Medicare’s payments to IRFs.

Four of five IRFs are hospital-based units that have access to capital through their parent institution, which, because of the credit crisis, may experience increased capital costs or delayed access to capital. The credit crisis may similarly affect access to capital among freestanding IRFs. One major national chain of freestanding IRF providers is highly leveraged, but the providers’ Medicare IRF margins are high. A second chain, operating five freestanding facilities, indicates that it is well positioned with regard to the economy-wide credit crisis. Most other freestanding

**TABLE
2F-7**

Rehabilitation hospital construction projects, 2006–2007

Project	2006						2007					
	Completed		Broke ground		Designed		Completed		Broke ground		Designed	
	Projects	Beds	Projects	Beds	Projects	Beds	Projects	Beds	Projects	Beds	Projects	Beds
Entire hospitals	12	493	14	722	24	970	22	554	14	586	24	704
Expansions	13	170	10	140	14	517	11	695	7	138	16	440
Renovations	24	217	21	239	28	354	34	145	11	141	27	357
Total	49	880	45	1,101	66	1,841	67	1,394	32	865	67	1,501

Source: Robeznieks 2008, Romano 2007.

facilities are independent or local chains of only a few providers (for profit or nonprofit), and access to capital for these providers is less clear.

Modern Healthcare’s annual survey of hospital construction indicates that construction and planning of new rehabilitation facilities progressed at a moderate pace

in 2007 (Table 2F-7). Rehabilitation construction projects that began or were designed in 2007 had fewer additional total beds than were represented by these phases in 2006, possibly reflecting industry’s continued adjustment to the 75 percent rule. Construction projects completed in 2007 had more total beds than those completed in 2006.

Overall, payments have grown faster than costs since implementation of the IRF PPS

The last component of our update framework examines changes in payments and costs. We also calculate an aggregate Medicare margin for IRFs.

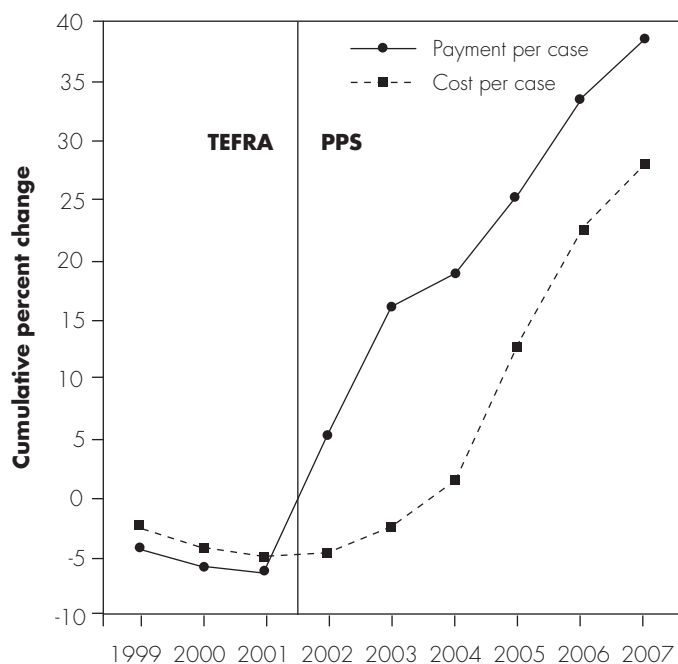
With the introduction of the IRF PPS in 2002, payments per case rose rapidly while growth in cost per case remained low in both 2002 and 2003 (Figure 2F-4). The renewed enforcement of the 75 percent rule resulted in rapid growth in costs per case between 2004 and 2006, rising an average 10 percent per year, as case mix increased and the volume of cases declined. Between 2006 and 2007, the rate of growth in cost per case slowed to 5.5 percent.¹⁵ In total, payments have grown faster than costs since the PPS was implemented in 2002.

IRF Medicare margins declined slightly in 2007 but remained high

In the aggregate, the financial performance of IRFs with respect to Medicare remained substantially positive through 2007. From 2002 (the beginning of the IRF PPS) to 2003, the aggregate Medicare margin increased rapidly, from 11 percent to almost 18 percent. During that period, all IRF provider types had rapid increases in margins (Table 2F-8). In 2004, the aggregate Medicare margin declined slightly to just over 16 percent and continued to decline moderately from 2005 to 2007. We estimate that

**FIGURE
2F-4**

IRFs’ payments per case have risen faster than costs, 1999–2007



Note: IRF (inpatient rehabilitation facility), TEFRA (Tax Equity and Fiscal Responsibility Act of 1982), PPS (prospective payment system). Data are from consistent two-year cohorts of IRFs.

Source: MedPAC analysis of Medicare cost report data from CMS.

**TABLE
2F-8**

IRFs' Medicare margins, by type

Type of IRF	TEFRA			PPS			
	2001	2002	2003	2004	2005	2006	2007
All IRFs	1.5%	11.0%	17.9%	16.3%	13.1%	12.3%	11.7%
Urban	1.5	11.3	18.3	16.6	13.2	12.6	12.1
Rural	1.2	8.2	13.5	14.0	12.4	9.8	8.9
Freestanding	1.6	18.5	23.0	24.3	20.5	17.4	18.5
Hospital based	1.5	6.2	14.9	12.1	9.2	9.6	7.9
Nonprofit	1.6	6.7	14.5	12.8	10.2	10.6	9.3
For profit	1.3	18.7	24.3	24.1	19.4	16.3	16.9
Government	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Note: IRF (inpatient rehabilitation facility), TEFRA (Tax Equity and Fiscal Responsibility Act of 1982), PPS (prospective payment system), N/A (not available). Government-owned providers operate in a different context from other providers, so their margins are not necessarily comparable.

Source: MedPAC analysis of Medicare cost report data from CMS.

the aggregate Medicare margin for 2007 was 11.7 percent, a 0.6 percentage point decrease from 2006. In 2007, IRF margins were -5.7 percent at the 25th percentile and 19.2 percent at the 75th percentile, slightly lower than last year's margins at each of these points. Freestanding IRFs and for-profit IRFs, which had the highest margins in 2004 (greater than 20 percent), continued to exhibit the best financial performance in 2007, with margins of 18.5 percent and 16.9 percent, respectively. Hospital-based IRFs and nonprofit IRFs had comparatively lower margins that year—7.9 percent and 9.3 percent, respectively. In 2007, urban IRFs also showed a slightly higher aggregate margin (12.1 percent) than rural IRFs (8.9 percent).

Medicare margins for 2009

To project the aggregate Medicare margin for 2009, we model the policy changes that went into effect between 2007 (the year of our most recent data) and 2009 as well as any policies scheduled to be in effect in 2010 other than updates. The policies include:

- for fiscal year 2008, a market basket update of 3.2 percent for the first half of the year and a return to the 2007 base payment rate for the second half of the year in accord with the MMSEA;¹⁶ and
- for fiscal year 2009, a zero update to the IRF base payment rate (i.e., a base rate at the 2007 level) and

a projected 0.7 percent decrease in payments to maintain the 3 percent outlier target (CMS 2008, CMS 2007).

Over the past few years, the policy that we have anticipated to have the most significant impact on the projected margin was the phase-in of the revised 75 percent rule. However, with the 75 percent rule now permanently capped at 60 percent, we believe IRFs will not need to reduce admissions further to comply with this rule. Therefore, taking account of the recent legislation and other IRF policy changes that have taken place, we project that aggregate Medicare margins will decline from 11.7 percent in 2007 to 4.5 percent in 2009. The projected decrease in the margin is largely the result of the MMSEA provision that eliminated the IRF payment update for the second half of 2008 and for the full year of 2009. The margin projection for 2009 does not assume increased cost control efforts by IRFs in response to the MMSEA's elimination of the IRF update between 2007 and 2009 or the decline in discharges in recent years. IRFs have seen declining occupancy rates, suggesting that they may not have fully responded to recent decreases in volume. To the extent that IRFs restrain their cost growth in response to these changes, the projected 2009 margin would be higher than we have estimated.

How should Medicare payments change in 2010?

Generally, the statutory payment update for IRFs is the market basket for rehabilitation, psychiatric, and long-term care hospitals. However, the MMSEA reduced the IRF payment update to zero for the second half of fiscal year 2008 and for all of fiscal year 2009.

RECOMMENDATION 2F

The update to the payment rates for inpatient rehabilitation facility services should be eliminated for fiscal year 2010.

RATIONALE 2F

Our indicators of Medicare payment adequacy on net are more positive than negative. Capacity remains adequate to meet demand. Although the 75 percent rule has had significant impacts on IRF volume, this decline was consistent with the overall policy goal of the rule—to direct the most clinically appropriate types of cases to this intensive, costly setting. Our projected 2009 aggregate Medicare margin is 4.5 percent, down from 11.7 percent in 2007. To the extent that IRFs restrain their cost growth in

response to the MMSEA's elimination of the IRF update between 2007 and 2009 or the decline in discharges in recent years, the projected 2009 margin would be higher than we have estimated. On the basis of these analyses, we believe that IRFs could absorb cost increases and continue to provide care to clinically appropriate Medicare cases with no update to payments in 2010. We will closely monitor indicators within our update framework as we develop our recommendation for the IRF payment update in the next fiscal year.

IMPLICATIONS 2F

Spending

- This recommendation would decrease federal program spending relative to current law by between \$50 million and \$250 million in 2010 and by less than \$1 billion over five years.

Beneficiary and provider

- We do not expect this recommendation to have adverse impacts on Medicare beneficiaries' access to care. This recommendation may increase the financial pressure on some providers, but overall a minimal effect on providers' willingness and ability to care for Medicare beneficiaries is expected. ■

Endnotes

- 1 The 13 conditions are stroke; spinal cord injury; congenital deformity; amputation; major multiple trauma; hip fracture; brain injury; neurological disorders (e.g., multiple sclerosis, Parkinson's disease); burns; three arthritis conditions for which appropriate, aggressive, and sustained outpatient therapy has failed; and hip or knee replacement when bilateral, body mass index ≥ 50 , or age 85 or older. These conditions may count toward an IRF's compliance with the 75 percent rule if they are being actively treated in conjunction with the condition that is the primary cause for admission. For more information on Medicare's IRF payment system, see MedPAC's payment basics document at http://www.medpac.gov/documents/MedPAC_Payment_Basics_08_IRF.pdf.
- 2 This rule does not take the place of Medicare's general medical necessity requirements. For Medicare coverage of IRF services for an individual beneficiary, the services must be reasonable and necessary for treatment of the patient's condition, and it must be reasonable and necessary to furnish the care on an inpatient hospital basis rather than in a less intensive setting.
- 3 While the MMSEA rolled back and permanently set the compliance threshold to 60 percent, we continue to refer to the policy as "the 75 percent rule" in this chapter, as it governed IRFs' admission practices—and their associated costs and payments—through most of the period reflected in the analyses we report here.
- 4 The Health Care Financing Administration administered Medicare and was the predecessor to CMS.
- 5 Declassified IRFs that are units in critical access hospitals are paid 101 percent of their costs.
- 6 The number of critical access hospitals with IRF units increased from 4 in 2004 to 10 in 2007.
- 7 The 2006 estimate reflects significant upward revisions of IRF spending for this year by the CMS Office of the Actuary.
- 8 Members of the rehabilitation community point to the activities of CMS's recovery audit contractors (RACs) operating in a demonstration program in New York, California, and Florida as an additional cause of the reduction in IRF admissions during this period. The RACs—established under Section 306 of the Medicare Prescription Drug, Improvement, and Modernization Act of 2003—were charged with identifying and recouping overpayments in FFS Medicare. They have been criticized as being overly aggressive in complying with their mandate with respect to IRFs. Members of the rehabilitation community have also cited increased medical review activities among Medicare fiscal intermediaries and Medicare administrative contractors as leading to reductions in IRF admissions, particularly for joint replacement patients. The rehabilitation community has also criticized these medical review efforts as being overly aggressive.
- 9 eRehabdata.com has data on a subset of IRFs that subscribe to their inpatient rehabilitation outcomes system. The data include information related to the Inpatient Rehabilitation Facility–Patient Assessment Instrument, patient case mix, and protocols eRehabdata.com has developed to assess whether a case satisfies the 75 percent rule.
- 10 The compliance threshold was 60 percent for cost reporting periods beginning on or after July 1, 2005, through June 30, 2007. The threshold was scheduled to increase to 65 percent for cost reporting periods beginning on or after July 1, 2007, through June 30, 2008. However, as a result of passage of the MMSEA in December 2007, the threshold was permanently capped at 60 percent retroactive to cost reporting periods beginning on or after July 1, 2007.
- 11 The first year that "discharge to IRF" was available on hospital inpatient claims was 2002, but our analysis of these data suggests that hospitals did not consistently use this discharge destination code that year.
- 12 In 2006, cases previously coded under DRG–209 were split into two new DRGs: DRG–544 and DRG–545.
- 13 The effects of the 75 percent rule on shares of hip and knee replacement patients discharged to IRFs may not be entirely straightforward, as the increased adoption of computer-assisted surgery and minimally invasive surgery for hip and knee replacements may confound the picture. As discussed in more detail in our March 2008 report, the literature on the efficacy of these procedures for hip and knee replacements is mixed. To the extent that these new procedures lead to shorter lengths of stay, less postoperative pain, and quicker rehabilitation after surgery, their use could also partly explain the shift of patients from IRFs to home health care, SNFs, or outpatient settings.
- 14 SNFs use the Minimum Data Set, home health agencies use the Outcome and Assessment Information Set, and IRFs use the IRF–PAI. Medicare does not require long-term care hospitals to use a specific patient assessment tool.

15 Members of the rehabilitation community attribute some of the cost increases in recent years to the added costs associated with appeals of medical necessity denials by the RACs, the fiscal intermediaries, and the Medicare administrative contractors.

16 In the fiscal year 2008 IRF final rule, CMS had projected a 0.7 percent decrease in payments in fiscal year 2008 relative to fiscal year 2007 due to an adjustment to the outlier threshold. In that rule, CMS estimated that outlier payments

for fiscal year 2007 would be 3.7 percent of total payments, which is 0.7 percentage point above the 3.0 percent target. CMS adjusted the fiscal year 2008 outlier threshold to a level that was projected to hit the 3.0 percent target. However, in the fiscal year 2009 IRF final rule, CMS projected—based on more recent data—that actual outlier payments in fiscal year 2008 would be 3.7 percent of total payments. Consequently, a decrease in outlier payments in fiscal year 2008 to the 3.0 percent target does not appear to have been achieved and therefore was not modeled in our margin projections.

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SECTION 2G

**Long-term care
hospital services**

R E C O M M E N D A T I O N

The Secretary should update payment rates for long-term care hospitals for fiscal year 2010 by the projected rate of increase in the rehabilitation, psychiatric, and long-term care hospital market basket index less the Commission's adjustment for productivity growth.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

Long-term care hospital services

Section summary

Long-term care hospitals (LTCHs) furnish care to patients with clinically complex problems—such as multiple acute or chronic conditions—who need hospital-level care for relatively extended periods. To qualify as an LTCH for Medicare payment, a facility must meet Medicare’s conditions of participation for acute care hospitals and have an average length of stay greater than 25 days for its Medicare patients. Medicare is the predominant payer for LTCH services, accounting for about 70 percent of LTCH discharges. The Commission examined indicators of payment adequacy for providers of LTCH services and found that, although projected margins are small, LTCHs appear to be able to operate within the current payment system. The supply of facilities and the number of LTCH cases per fee-for-service beneficiary have been stable, suggesting that access has been maintained. Growth in payments per case has slowed markedly but remains positive, while length of stay continues to decline. The evidence on quality is mostly positive. Access to capital is tight,

In this section

- Ensuring that appropriate patients are treated in LTCHs
- Are Medicare payments adequate in 2009?
- How should Medicare payments change in 2010?
- Update recommendation

reflecting general uncertainty in the financial markets, not the adequacy of Medicare payments.

Supply of facilities—Growth in the number of LTCHs remained relatively flat between 2005 and 2007. The number of LTCHs increased just 1 percent per year during the period. For several years, LTCHs that were colocated with acute care hospitals as hospitals within hospitals (HWHs) or as satellites were growing at a faster rate than freestanding LTCHs, but since 2005 the number of HWHs has fallen an average of 2 percent per year. This turnaround is likely due to the 25 percent rule, under which Medicare generally pays less if more than a specified percentage of an HWH's or satellite's patients are referred from its host hospital. LTCHs continue to be distributed very unevenly across the nation, with some areas having many and others having none. The Medicare, Medicaid, and SCHIP Expansion Act of 2007 (MMSEA) imposed a three-year limited moratorium on new LTCHs, LTCH satellites, and new beds in existing LTCHs. Thus, growth in the number of facilities over the next few years will be limited by the moratorium and will not reflect the adequacy of Medicare's payments to LTCHs.

Volume of services and beneficiaries' access to care—We have no direct measures of beneficiaries' access to LTCH services, but beneficiaries' use of services suggests that access has not been a problem. Controlling for the change in enrollment in the traditional fee-for-service program, we found that the number of beneficiaries using LTCHs rose an average of 0.3 percent between 2005 and 2007, suggesting that access to care was maintained during the period.

Quality—The evidence on quality is mostly positive. Readmission rates for the top 15 LTCH diagnoses (which account for 60 percent of all LTCH patients) have been stable or declining. Rates of death in the LTCH and death within 30 days of discharge also have been declining for most diagnoses. Where death rates have risen, generally admissions have declined as well—sometimes markedly—so it is possible that severity of illness has

increased in these case types. LTCH patients appear to have experienced fewer infections due to medical care and fewer cases of postoperative sepsis. However, patients appear to have experienced more decubitus ulcers and more cases of postoperative pulmonary embolisms and deep vein thrombosis.

Access to capital—In the current economy-wide credit crisis, LTCHs' access to capital reveals little about Medicare payment adequacy. The MMSEA was expected to improve the industry's financial outlook, but the credit crisis deepened shortly after passage of the Act. The impact of the credit crisis will likely vary across the industry, depending in part on the degree to which providers are already leveraged. The three-year moratorium on new beds and facilities imposed by the MMSEA will reduce the need for capital by limiting opportunities for expansion.

Payments and costs—Since 2005, total payments to LTCHs have held steady at \$4.5 billion annually due to changes in payment policies and growth in the number of beneficiaries enrolling in Medicare Advantage plans, whose LTCH use is not included in this spending total. Growth in cost per case has increased rapidly since the prospective payment system was implemented, climbing 9 percent between 2003 and 2004 and about 5 percent annually between 2004 and 2007. Payments grew even faster between 2003 and 2005, but since then the gap between payment and cost growth has narrowed.

LTCHs' Medicare margin for 2007 is 4.7 percent. Although implementation of the MMSEA significantly improved the financial outlook for LTCHs, reductions in payment are still likely to outweigh payment increases over the next few years. As a result, we estimate LTCHs' aggregate Medicare margin will be 0.5 percent in 2009.

These trends suggest that, although projected margins are small, LTCHs are able to operate within the current payment system. We recommend that the Secretary update payment rates for LTCH services by the market basket index, less the Commission's adjustment for productivity growth. We

recommend to the Secretary rather than the Congress because the Secretary has the authority to determine updates to payment rates for LTCHs. Under the current forecast of the rehabilitation, psychiatric, and LTCH market basket, the Commission's recommendation would update the LTCH payment rates by 1.6 percent in 2010. (The estimated market basket is subject to change, resulting in change to the update amount.) ■

Recommendation 2G

The Secretary should update payment rates for long-term care hospitals for fiscal year 2010 by the projected rate of increase in the rehabilitation, psychiatric, and long-term care hospital market basket index less the Commission's adjustment for productivity growth.

COMMISSIONER VOTES:

YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

Background

Patients with clinically complex problems, such as multiple acute or chronic conditions, may need hospital-level care for relatively extended periods. Some are treated in long-term care hospitals (LTCHs). To qualify as an LTCH for Medicare payment, a facility must meet Medicare's conditions of participation for acute care hospitals and have an average length of stay greater than 25 days for its Medicare patients. (By comparison, the average Medicare length of stay in acute care hospitals is about five days.) Beginning January 1, 2008, LTCHs also must have a screening process to help ensure the appropriateness of patient admissions and stays. Because

of the relatively long stays and the level of care provided, care in LTCHs is expensive.

Since October 2002, Medicare has paid LTCHs prospective per discharge rates based primarily on the patient's diagnosis and the facility's wage index.³ The prospective payment system (PPS) pays differently for patients who are high-cost outliers and for those whose lengths of stay are substantially shorter than average. CMS reduced payment for very short stays in 2006 and again for a smaller group of the very shortest stays in 2007. The Medicare, Medicaid, and SCHIP Extension Act of 2007 (MMSEA) suspended the 2007 changes until December 29, 2010. (This policy is discussed in detail in the text box on payment for short-stay outliers.)

Payments for short-stay outliers in long-term care hospitals

A short-stay outlier (SSO) is a patient with a shorter-than-average length of stay. In the long-term care hospital (LTCH) payment system, lower payments are triggered for patients with a length of stay less than or equal to five-sixths of the geometric mean length of stay for the patient's long-term care diagnosis related group (LTC-DRG).¹ The SSO policy reflects CMS's contention that patients with lengths of stay similar to those in acute care hospitals should be paid at rates comparable to those under the acute care hospital prospective payment system. In 2007, about 32 percent of LTCH patients received payment adjustments for having shorter-than-average stays, but this share varied across types of cases. Approximately 90 percent of cases with psychiatric diagnoses received SSO adjustments (RTI 2007).

Before July 2007, the amount Medicare paid to LTCHs for an SSO case was the lowest of:

- 100 percent of the cost of the case,
- 120 percent of the LTC-DRG specific per diem amount multiplied by the patient's length of stay,
- the full LTC-DRG payment, or
- a blend of the inpatient prospective payment system (IPPS) amount for the DRG and 120 percent of the LTC-DRG per diem payment amount.²

Generally, for the same DRG, the LTCH payment is greater than the payment under the IPPS.

Effective July 2007, Medicare applied a different standard for the very shortest SSO cases ("very short-stay outliers"). These cases, representing about 16 percent of LTCH admissions, are those in which length of stay is less than or equal to the average length of stay for the same DRG at acute care hospitals paid under the IPPS plus one standard deviation. For SSO cases that meet this IPPS comparable threshold, LTCHs were to be paid the lowest of:

- 100 percent of the cost of the case,
- 120 percent of the LTC-DRG specific per diem amount multiplied by the patient's length of stay,
- the full LTC-DRG payment, or
- the IPPS per diem amount multiplied by the length of stay for the case, not to exceed the full IPPS payment amount.

The Medicare, Medicaid, and SCHIP Extension Act of 2007 prohibited the Secretary from applying the very SSO standard for a three-year period beginning December 29, 2007. Very SSO cases are now paid at the same rate as other SSO cases. ■

**TABLE
2G-1****The top 15 LTC-DRGs made up almost 60 percent of LTCH discharges in 2007**

LTC-DRG	Description	Discharges	Percentage
565	Respiratory system diagnosis with ventilator support 96+ hours	13,830	10.7%
87	Pulmonary edema and respiratory failure	7,386	5.7
576	Septicemia with mechanical ventilation <96 hours age >17	6,799	5.3
271	Skin ulcers	6,766	5.2
79	Respiratory infections and inflammation age >17 with CC	6,378	4.9
89	Simple pneumonia and pleurisy age >17 with CC	4,655	3.6
88	Chronic obstructive pulmonary disease	4,185	3.2
249	Aftercare, musculoskeletal system and connective tissue	3,915	3.0
466	Aftercare, without history of malignancy	3,836	3.0
263	Skin graft and/or debridement for skin ulcer with CC	3,749	2.9
12	Degenerative nervous system disorders	3,343	2.6
127	Heart failure and shock	3,328	2.6
462	Rehabilitation	3,066	2.4
418	Postoperative and post-traumatic infections	2,575	2.0
316	Renal failure	2,509	1.9
	Top 15 LTC-DRGs	76,320	59.1
	Total	129,202	100.0

Note: LTC-DRG (long-term care diagnosis related group), LTCH (long-term care hospital), CC (complication or comorbidity). LTC-DRGs are the case-mix system for these facilities. Columns may not sum due to rounding.

Source: MedPAC analysis of MedPAR data from CMS.

Until 2007, LTCH payment rates were based on the long-term care diagnosis related group (LTC-DRG) patient classification system, which groups patients based primarily on diagnoses and procedures. In October 2007, CMS began replacing the LTC-DRGs with Medicare severity LTC-DRGs (MS-LTC-DRGs), which are intended to improve the accuracy of payments (CMS 2007a). MS-LTC-DRGs comprise base LTC-DRGs that have been subdivided into one, two, or three severity levels. As with the LTC-DRG system, the MS-LTC-DRGs are the same groups used in the acute inpatient PPS but have relative weights specific to LTCH patients, reflecting the average relative costliness of cases in the group compared with that for the average LTCH case. Payments in 2009 are based entirely on MS-LTC-DRG weights.

LTCH discharges are concentrated in a relatively small number of diagnosis groups. In fiscal year 2007, the top 15 LTCH diagnoses made up almost 60 percent of all discharges from LTCHs (Table 2G-1). The most frequently occurring diagnosis was LTC-DRG 565, respiratory system diagnosis with ventilator support for 96 or more

hours.⁴ Five of the top 15 diagnoses, representing almost 30 percent of LTCH patients, were respiratory conditions.

Ensuring that appropriate patients are treated in LTCHs

Previous research by the Commission found that the types of patients LTCHs treat are often cared for in alternative settings, such as acute care hospitals and skilled nursing facilities (MedPAC 2004). The Commission found that Medicare pays more for patients using LTCHs than for similar patients using other settings; however, the payment differences narrowed considerably if LTCH care was targeted to the most severely ill patients.⁵ The Commission has therefore argued that, while LTCHs appear to have value for very sick patients, they are too expensive to be used for patients who could be treated in less intensive settings (MedPAC 2004).⁶ As a result, in 2004, the Commission called for facility and patient criteria to

**TABLE
2G-2**

Growth in the number of LTCHs has slowed for most types

	2002	2003	2004	2005	2006	2007	Average annual change	
							2002-2005	2005-2007
Type of LTCH								
All	286	317	353	388	392	396	10.7%	1.0%
Urban	266	291	322	354	359	365	10.0	1.5
Rural	20	26	31	33	32	30	18.2	-4.7
Freestanding	137	142	146	157	165	175	4.6	5.6
Hospital within hospital	149	175	207	231	227	221	15.7	-2.2
Nonprofit	85	100	117	129	133	129	14.9	0.0
For profit	168	187	207	230	228	231	11.0	0.2
Government	33	30	29	29	31	36	-4.2	11.4
Total certified beds	21,834	23,317	24,526	25,899	25,982	26,526	5.9	1.2

Note: LTCH (long-term care hospital).

Source: MedPAC analysis of Provider of Service files from CMS.

differentiate LTCHs from other settings that furnish less complex care and to ensure that only appropriate patients receive this level of care. In response, CMS contracted with RTI International to investigate the development of such criteria (see text box, p. 238–239). The MMSEA required the Secretary of Health and Human Services to study the use of LTCH facility and patient criteria to determine medical necessity and appropriateness of admission to and continued stay at LTCHs. A report to the Congress is due in June of this year. The LTCH industry is also sponsoring a study to establish criteria.

Because the types of patients treated by LTCHs can be (and are) treated in other settings, it would be impractical for CMS to develop criteria defining patients who can be cared for exclusively in LTCHs. Instead, CMS should seek to define the level of care typically furnished in LTCHs and other settings that provide similar services, such as step-down units of acute care hospitals and some specialized skilled nursing facilities and inpatient rehabilitation facilities.⁷ To do so, CMS will need more data to compare types of patients, payments and costs, quality of care, and outcomes across these facilities. Such data would also provide the information needed to ensure that Medicare payments for the same types of patients are similar, regardless of setting. CMS’s post-acute care

demonstration, currently under way, will test the use of a single assessment tool in multiple post-acute care settings, including LTCHs.

Are Medicare payments adequate in 2009?

Each year, the Commission makes payment update recommendations for LTCH services for the coming year. In our framework, we estimate the adequacy of payments in the current year and then consider how much we expect providers’ costs to change in the coming policy year (2010). To judge payment adequacy, we consider the supply of facilities, changes in the volume of services and beneficiaries’ access to care, changes in the quality of care, LTCHs’ access to capital, and the relationship between Medicare’s payments and LTCHs’ costs.

Supply of providers has remained stable

Growth in the number of LTCHs participating in the Medicare program has remained relatively flat. After a period of rapid growth, the number of LTCHs increased just 1 percent per year between 2005 and 2007 (Table 2G-2). The MMSEA imposed a three-year limited

RTI International major findings and recommendations

In 2004, the Commission recommended the use of facility and patient criteria to define long-term care hospitals (LTCHs) and ensure that they treat appropriate patients (MedPAC 2004). In response, CMS contracted with RTI International to investigate the development of such criteria. As part of their work for CMS, RTI analyzed claims data from 2004 to identify variations in LTCH patients as well as differences between the LTCH population and the population of patients treated in short-term acute care hospitals (particularly those qualifying for outlier payments) (RTI 2007).

RTI's analyses yielded a number of useful findings, some of which are similar to the Commission's findings from our earlier study of claims data from 2001 (before the LTCH prospective payment system was implemented) (MedPAC 2004). RTI found that:

- The two most important factors in predicting LTCH admission were severity of illness and whether the beneficiary lived in a state where many LTCHs were available. Having an all patient refined diagnosis related group (DRG) severity score of 4 (most severely ill) more than doubled the probability of an LTCH admission relative to having a severity level of 2. Patients in high LTCH states—such as Indiana, Louisiana, Massachusetts, Michigan, Pennsylvania, Ohio, and Texas—were almost three times more likely to be admitted to an LTCH than patients in other states.
- Having an LTCH admission was associated with a 1.4-day shorter length of stay on average in the general acute care hospital, all else equal, suggesting that LTCH care may be substituting for some of the later days of short-term acute hospital care.
- Margins varied substantially across DRGs, even after stratifying to remove the effects of the prevalence of high-cost or short-stay outliers. Across the 10 most common reasons for admission, average margins were lowest for rehabilitation (–0.1 percent) and highest for ventilator support (21.3 percent). This variation in profitability across DRGs stemmed from bias in the DRG weights that caused systematic understatement of costs for cases using relatively more ancillary services.
- In areas with LTCHs, use of LTCHs by the most complex ventilator patients may be associated with the same or lower costs but better clinical outcomes (Dalton and Gage 2008a). By contrast, use of LTCHs by the least complex ventilator patients may be associated with higher Medicare payments and similar or worse outcomes.
- LTCH supply (i.e., the availability of LTCHs in a geographic area) may be associated with fewer days per episode of illness for ventilator patients (Dalton and Gage 2008b). However, there appear to be no significant differences between LTCH areas and non-LTCH areas in ventilator patients' mortality and readmissions, or in their Part A costs per episode.

continued next page

moratorium, effective December 29, 2007, on new LTCHs and on new beds in existing LTCHs.⁸ Thus, growth in the number of facilities over the next few years will be more a function of the moratorium than of the adequacy of Medicare's payments to LTCHs.

LTCHs can be either freestanding facilities or colocated within other hospitals as hospitals within hospitals (HWHs) or as satellites. For several years, HWHs were growing at a faster rate than freestanding LTCHs—about 16 percent annually from 2002 to 2005, compared with about 5 percent for freestanding facilities. But since 2005, the number of HWHs has fallen an average 2 percent

per year. This turnaround is likely due to the 25 percent rule, which CMS established to discourage patient shifting from acute care hospitals to colocated LTCHs.⁹ Under the 25 percent rule, Medicare makes an adjusted payment for certain patients that an HWH or satellite LTCH admits from its host hospital once an applicable percentage threshold has been exceeded (see text box, p. 241). Policymakers expected the rule would reduce the profitability of HWHs, slowing entry of new HWHs into the Medicare program and resulting in the closure of some existing facilities. Of the 15 LTCHs that closed in 2007, all but two were HWHs or satellites.

RTI International major findings and recommendations (cont.)

The results of the study led RTI to make several recommendations for identifying appropriate LTCH cases and payment levels. These recommendations included:

- restricting LTCH admissions to cases that meet certain medical conditions (not physical functioning or psychiatric) that are medically complex (defined broadly to include a wide range of conditions but all with severe medical complications, comorbidities, or system failures) (RTI 2007);
- requiring LTCH admissions to be discharged if not having diagnostic procedures or improving with treatment;
- developing a list of criteria to measure medical severity for hospital admissions;
- establishing a technical advisory panel to recommend a small set of criteria for defining medically complex patients appropriate for LTCH admissions and recommend measurement levels for each item that identify medically complex patients;
- establishing a data collection mechanism to collect this information;
- requiring LTCHs to collect and submit functional impairment measures as well as physiologic measures on all patients receiving physical, occupational, and speech–language pathology services;
- standardizing conditions of participation and setting staffing requirements to ensure appropriate staff for treating medically complex cases;
- establishing transfer rules to provide a disincentive for LTCHs to transfer cases early to other post-acute settings; and
- conducting additional research to examine the adequacy of payment under the LTCH and acute care hospital PPSs for medically complex patients.

Finally, RTI contended that the major issues at hand are whether LTCH and short-term acute care hospital payments are appropriate for medically complex patients who need intensive treatment programs and whether provider staffing policies are appropriate for the care of these patients. In addition, RTI raised concerns that hospitals (both short-term acute care hospitals and LTCHs) are unbundling services for which they have already been paid and discharging patients to the next level of care. ■

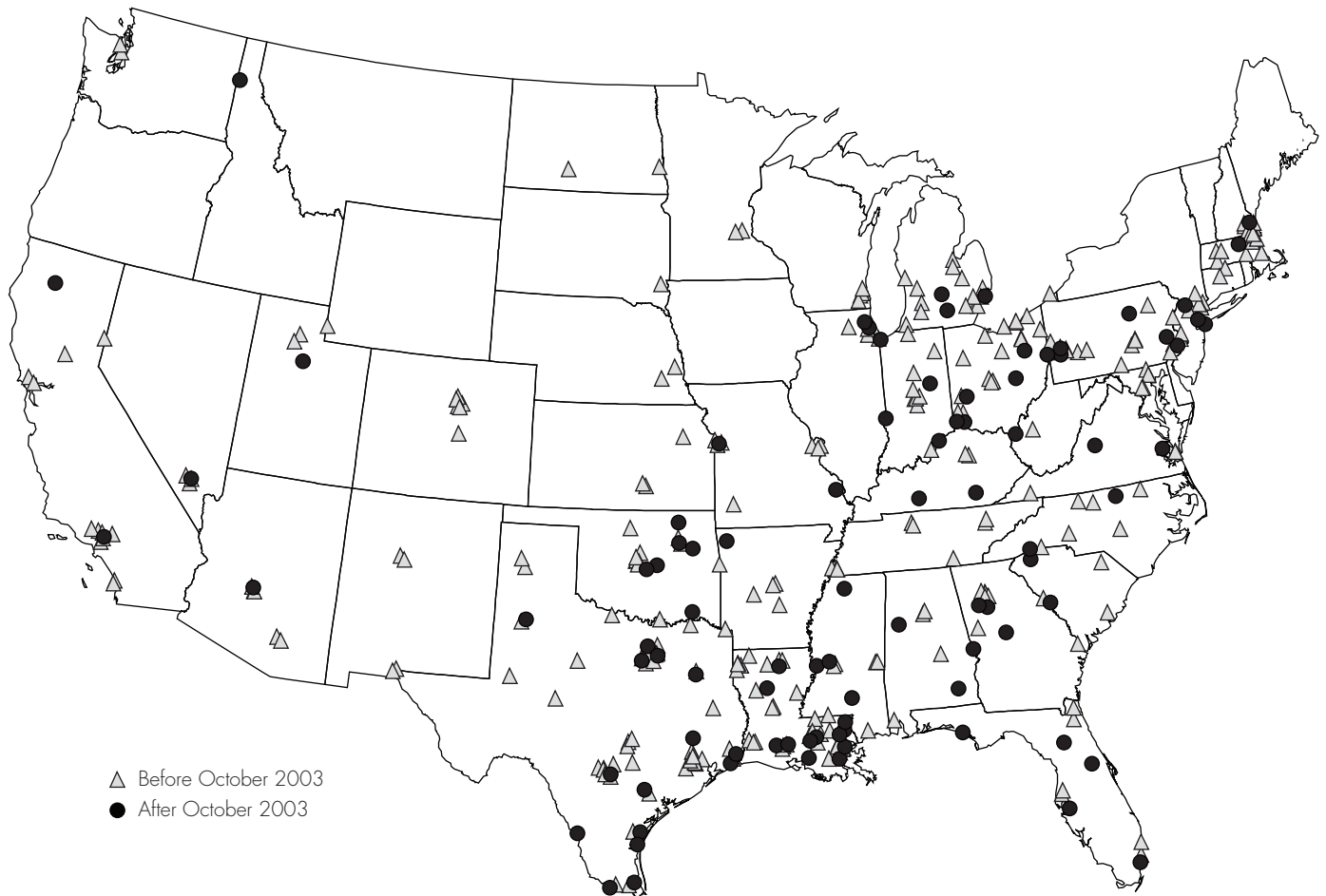
LTCHs are not distributed evenly across the nation, as shown in Figure 2G-1 (p. 240). Some areas have many LTCHs; others have none. Nationwide, there were approximately 26,500 Medicare-certified LTCH beds in 2007, or less than 1 bed per 1,000 Medicare beneficiaries. The five states with the largest number of LTCH beds per beneficiary accounted for 38 percent of the available LTCH beds but only 11 percent of the Medicare beneficiary population. Relatively new LTCHs—those that entered the Medicare program under the PPS—frequently have located in markets where LTCHs already existed instead of opening in new markets, which is somewhat surprising because these facilities are supposed to be serving unusually sick patients, and one would expect such patients to be relatively rare. The clustering of LTCHs and the location of new facilities thus raise questions about the role these facilities play in the continuum of care.

Volume of services and access to care have remained stable

We have no direct measures of beneficiaries' access to LTCH services, but beneficiaries' use of services suggests that access has not been a problem. Controlling for the change in the number of fee-for-service beneficiaries, we found that the number of LTCH cases rose an average of 0.3 percent per year between 2005 and 2007 and the number of beds and facilities remained relatively constant, suggesting that access to care was maintained during the period. But assessment of access is difficult both because there are no criteria for LTCH patients and because it is not clear whether all patients treated in LTCHs require that level of care.

**FIGURE
2G-1**

New long-term care hospitals often enter areas with existing ones



Source: MedPAC analysis of Provider of Service file from CMS.

Quality of care measures mostly positive

We use measures of quality for LTCHs that can be calculated from routinely collected administrative data: death in the LTCH, death within 30 days of discharge from the LTCH, and readmission to acute care hospitals for each of the top 15 LTCH diagnoses. In addition, we monitor selected Agency for Healthcare Research and Quality (AHRQ) patient safety indicators (PSIs) that measure adverse events. The evidence based on these measures is mostly positive.

Death in the facility, death within 30 days of discharge, and readmission to the acute care hospital are generally used as gross indicators of quality. We focus on examining

trends in these indicators, rather than levels, because levels can reflect both planned readmissions and unplanned incidents as well as coding practices. We consider these indicators for the top 15 LTCH diagnoses. These diagnoses account for almost 60 percent of all LTCH patients. We found that readmission rates have been stable or declining for virtually all these diagnoses. Rates of death in the LTCH and death within 30 days of discharge also have been declining for most diagnoses. Where death rates have risen, for all but one diagnosis the number of admissions has declined as well—sometimes markedly—so it is possible that severity of illness has increased for these diagnoses.

The 25 percent rule

In fiscal year 2005, CMS established a new policy—the so-called 25 percent rule—to discourage patient shifting between host hospitals and their collocated long-term care hospitals (LTCHs) (called hospitals within hospitals or HWHs) or satellites. CMS wanted to discourage this shifting so that decisions about admission, treatment, and discharge in both the acute care hospital and the LTCH are made for clinical rather than financial reasons and so that HWHs and satellites are not functioning as long-stay units of host hospitals.

The 25 percent rule uses payment adjustments to limit the percentage of Medicare patients who are admitted from an HWH's or satellite's host hospital and paid for at full LTCH payment rates. HWHs and satellites are paid LTCH prospective payment system (PPS) rates for patients admitted from the host acute care hospital until the percentage of discharges from the host hospital exceeds the threshold that year. After the threshold is reached, the LTCH is paid the lesser of the LTCH PPS rate or an amount equivalent to the acute hospital PPS rate for patients discharged from the host acute care hospital.¹⁰ Patients from the host hospital who are outliers under the acute hospital PPS before their discharge to the HWH do not count toward the threshold and continue to be paid at the LTCH PPS rate even if the threshold has been reached. The policy was to be phased in over three years, with the threshold set at 75 percent for fiscal year 2006, 50 percent for fiscal year 2007, and 25 percent for fiscal year 2008 and beyond. (Less stringent thresholds were applied to HWHs and satellites in rural areas or in urban areas where they are the sole LTCH or where there is a dominant acute care hospital.)

We estimated that this policy would reduce Medicare payments to LTCHs unless behavior changed. The impact of the policy could be reduced if HWHs and satellites admitted more patients who were high-cost outliers in their host hospitals, admitted patients from other acute care hospitals, and reorganized as freestanding LTCHs. In addition, the impact of this policy might be blunted because, despite a regulatory requirement for HWHs and satellites to report their status to their fiscal intermediaries, CMS has had problems identifying HWHs and satellites.

Beginning July 2007, CMS extended the 25 percent rule to apply to LTCHs not previously governed by the 25 percent threshold, thus limiting the percentage of patients who could be admitted to an LTCH from any one referring hospital during a cost-reporting period without being subjected to a payment adjustment. The extended policy was to be phased in over three years, with the applicable threshold set at 75 percent for rate year 2008.

The Medicare, Medicaid, and SCHIP Extension Act of 2007 (MMSEA) substantially changed the 25 percent rule by rolling back the phased-in implementation of the 25 percent rule for many HWHs and satellites, limiting the percentage of Medicare patients who can be admitted from most HWHs' and satellites' host hospitals during a cost-reporting period without a payment adjustment to no more than 50 percent and holding it at that level for three years. (The applicable threshold for most HWHs and satellites in rural areas or in urban areas with a single or dominant acute care hospital is 75 percent.) The MMSEA also prevents the Secretary from applying the 25 percent rule to freestanding LTCHs for three years. ■

AHRQ publishes 25 hospital-level PSIs to identify potentially preventable adverse events resulting from acute hospital care (AHRQ 2007). Four of them appear most appropriate for LTCHs—decubitus ulcers, infection due to medical care, postoperative pulmonary embolism (PE) or deep vein thrombosis (DVT), and postoperative sepsis.¹¹ Patients in LTCHs frequently have lengthy stays and may be more likely to develop decubitus ulcers than patients in

some other settings. Five of the 10 most frequent LTCH diagnoses are respiratory related, so postoperative PE and DVT can be risks for these patients. We calculated the change in the rates per 1,000 LTCH patients for the four PSIs; the results are shown in Table 2G-3 (p. 242).¹² The incidence rates for two of the PSIs—infection due to medical care and postoperative sepsis—declined from 2006 to 2007, indicating improved quality, while the

**TABLE
2G-3**

Two of four patient safety indicators for LTCHs improved from 2006 to 2007

Patient safety indicator	Risk-adjusted rates per 1,000 eligible discharges				Change in rate, 2006-2007	Observed adverse events, 2007	Total number of patients, 2007
	2004	2005	2006	2007			
Decubitus ulcer	48.75	50.01	49.32	50.61	2.6%	3,160	21,840
Infection due to medical care	8.50	9.25	9.85	8.88	-9.9	2,857	96,310
Postoperative PE or DVT	17.44	17.83	16.39	16.80	2.5	911	16,184
Postoperative sepsis	20.01	17.64	17.63	15.36	-12.9	610	4,031

Note: LTCH (long-term care hospital), PE (pulmonary embolism), DVT (deep vein thrombosis). Due to changes in the software used to calculate patient safety indicators, the risk-adjusted rates above cannot be compared with numbers published in previous MedPAC reports.

Source: MedPAC analysis of MedPAR data from CMS.

rates for decubitus ulcer and postoperative PE or DVT increased, indicating worsening quality. However, we need to be cautious about interpreting the results from the PSI analysis, as the PSIs were developed for acute hospital care, not LTCHs. Further, the rates could be affected by changes in coding practices and not just changes in the underlying quality of care (AHRQ 2007).

Additional measures of quality for LTCHs are needed. The AHRQ PSIs can be calculated for overall industry safety in LTCHs, but because the incidence of these problems is relatively low, they are not suitable for measuring quality in individual hospitals. CMS does not collect information on patient outcomes in LTCHs. Without such data, it is difficult to compare care across settings and measure the value Medicare gets from the money it spends.

CMS's post-acute care demonstration is testing a uniform patient assessment instrument across post-acute care settings, including LTCHs. The demonstration provides an opportunity for CMS to observe and analyze the use of quality measures in LTCHs and to compare costs and outcomes across providers. However, results will not be available for several years.

LTCHs' access to capital is limited, but moratorium on growth restricts opportunities for expansion

The current economy-wide credit crisis means that LTCHs' access to capital tells us little about Medicare payment adequacy. Most businesses, both inside and outside the health care sector, face rising capital costs and have less access to capital. For the LTCH industry in

particular, analysts report that some smaller LTCH chains continue to be highly leveraged, which further limits (or eliminates) their access to capital markets. Some smaller chains and those that are fiscally challenged may need to seek partnerships to acquire necessary capital (Fitch Ratings 2008).

The economy-wide credit crisis emerged shortly after passage of the MMSEA, which made important changes in Medicare's payment for LTCH services. The MMSEA rolled back the phased-in implementation of the 25 percent rule for certain HWHs and satellites and prohibited the Secretary from applying the 25 percent rule to freestanding LTCHs for three years. For the same period, the law also prohibited the Secretary from applying different payment rules for LTCH patients with the shortest lengths of stay. These changes prevented CMS from reducing payment for a significant number of LTCH patients, thereby improving the industry's financial outlook. That improved outlook has likely changed because of the current economic situation, but the three-year moratorium on new beds and facilities also imposed by the MMSEA will reduce the need for capital by limiting opportunities for expansion.

Payments and costs

Between 2003 and 2005, Medicare payments for LTCH services grew rapidly after the LTCH PPS was first implemented, climbing an average of almost 29 percent per year (Table 2G-4). Since 2005, payments have held steady at \$4.5 billion due to previously mentioned changes in payment policies and growth in the number of beneficiaries enrolling in Medicare Advantage plans,

**TABLE
2G-4**

Medicare LTCH spending per FFS beneficiary continues to rise

	TEFRA			PPS					Average annual change	
	2001	2002	Change 2001-2002	2003	2004	2005	2006	2007	2003-2005	2005-2007
Cases	85,229	98,896	16.0%	110,396	121,955	134,003	130,164	129,202	10.2%	-1.8%
Cases per 10,000 FFS beneficiaries	25.1	28.6	14.0	31.3	33.9	37.0	36.7	37.3	8.8	0.3
Spending (in billions)	\$1.9	\$2.2	18.6	\$2.7	\$3.7	\$4.5	\$4.5	\$4.5	28.5	-0.2
Spending per FFS beneficiary	\$56.0	\$64.3	14.9	\$77.5	\$101.8	\$124.6	\$128.0	\$129.6	26.8	2.0
Payment per case	\$22,009	\$22,486	2.2	\$24,758	\$30,059	\$33,658	\$34,859	\$34,769	16.6	1.6
Length of stay (in days)	31.3	30.7	-1.9	28.8	28.5	28.2	27.9	26.9	-1.0	-2.3

Note: LTCH (long-term care hospital), FFS (fee-for-service), TEFRA (Tax Equity and Fiscal Responsibility Act of 1982), PPS (prospective payment system). Numbers may not sum due to rounding. Growth in cases and spending was slowed in 2006 and 2007 by large increases in the number of Medicare Advantage enrollees, whose LTCH use is not included in these totals.

Source: MedPAC analysis of MedPAR data from CMS.

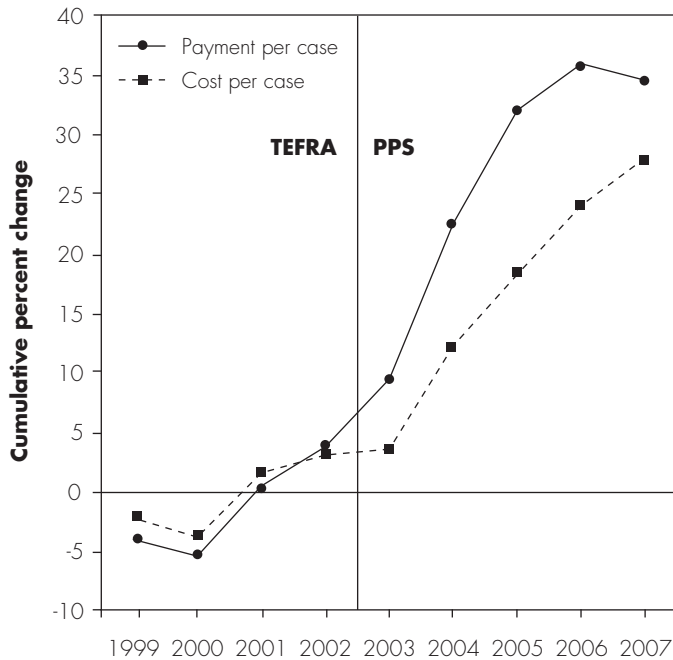
whose LTCH use is not included in these totals. Medicare spending per fee-for-service beneficiary continued to rise, growing an average 2 percent per year between 2005 and 2007. CMS estimates that total Medicare spending for LTCHs will be \$4.8 billion in 2009 and will reach \$5.7 billion in 2013 (CMS 2008).

Growth in cost per case has increased rapidly since the PPS was implemented, climbing 9 percent between 2003 and 2004 and about 5 percent annually between 2004 and 2007 (Figure 2G-2, p. 244). LTCHs seem to be responsive to changes in payments, adjusting their costs per case when payments per case change. Although payments were significantly higher than costs, the rise in cost per case from 2000 to 2006 roughly paralleled growth in payments per case. The gap between payment and cost growth narrowed in 2007.

Much of the growth in payments since the PPS was implemented has been due to an increase in the reported patient case-mix index, which, in principle, measures the expected costliness of a facility's patients. CMS estimated an increase in the observed case-mix index of 6.75 percent between fiscal years 2003 and 2004, 3.5 percent in 2005, and 1.9 percent in 2006 (CMS 2008, CMS 2007b, CMS 2006). Not all the growth in

observed case mix was due to changes in the intensity and complexity of patients admitted to LTCHs. Some of the observed case-mix growth was due to improvements in documentation and coding that were unrelated to changes in intensity and complexity. History suggests that the introduction of new case-mix classification systems and subsequent refinements to those systems usually lead to more complete documentation and coding of the diagnoses, procedures, services, comorbidities, and complications that are associated with payment. That can raise the average case-mix index under the new or refined classification system, even though patients are no more resource intensive than they were previously. Changes to a classification system can therefore lead to unwarranted increases in payments to providers.

Increases in the case-mix index due to documentation and coding improvements can be expected to plateau over time, as LTCHs become familiar with the classification system. Facilities' experience with the system may have helped to dampen recent growth in payments per case. However, with introduction of the MS-LTC-DRGs, Medicare's refined case-mix classification system, in October 2007, we expect that improvements in LTCHs' documentation and coding of diagnoses and procedures will lead to increases in reported case mix (MedPAC 2007).

**FIGURE
2G-2****The gap between LTCH payment and cost growth narrowed in 2007**

Note: LTCH (long-term care hospital), TEFRA (Tax Equity and Fiscal Responsibility Act of 1982), PPS (prospective payment system). Data are from consistent two-year cohorts of LTCHs.

Source: MedPAC analysis of Medicare cost report data from CMS.

After peaking in 2005, growth in LTCHs' Medicare margin (the difference between Medicare payments and costs) declined but remained positive. Under the pre-PPS payment system for LTCHs, LTCHs' Medicare margins were often less than zero (Table 2G-5). After the LTCH PPS was implemented in 2003, margins rose rapidly for all LTCH provider types, climbing from -0.2 percent in 2002 to 11.9 percent in 2005. At that point, Medicare margins began to decline, as growth in payments per case leveled off. The 2007 Medicare margin for LTCHs was 4.7 percent.

For-profit LTCHs had higher margins in 2007 than nonprofit LTCHs. (Government-owned LTCHs are relatively few in number, have few Medicare patients, and operate under different budget and economic constraints than other LTCHs). In 2007, in a trend reversal, freestanding LTCHs had higher margins than HWHs. This change was likely due to the 25 percent rule, which can reduce payments for some patients in HWHs (see text box, p. 241).

A number of payment policy changes affect our estimate of the 2009 Medicare margin, including:

- a market basket increase of 3.7 percent for 2008, offset by an adjustment for past coding improvement for a net update of 0.6 percent;¹³
- a market basket increase of 3.5 percent for 2009, offset by an adjustment for past coding improvements and an adjustment to account for changes in law that reduced payments for rate year 2008, for a net update of 1.9 percent;¹⁴
- implementation of the MS-LTC-DRGs in 2008, which we expect will result in improved coding and documentation and thus increase payments;
- adjustments to the high-cost outlier fixed loss amount for 2008 and 2009, which decrease payments; and
- changes to the wage index in 2008 and 2009, which decrease payments.

In recent years, CMS made several changes to the 25 percent rule to limit the percentage of total patients HWHs and satellites can admit from their host hospitals for full Medicare payment. In fiscal year 2007, the threshold was set at 50 percent; in 2008, the threshold was 25 percent. In addition, effective July 2007, CMS extended the 25 percent rule to apply to freestanding LTCHs, limiting the proportion of patients who can be admitted to an LTCH from any one acute care hospital during a cost-reporting period. For rate year 2008, the threshold for freestanding LTCHs was 75 percent. But the MMSEA substantially changed the 25 percent rule by rolling back the threshold for most HWHs and satellites to 50 percent (the level it was in fiscal year 2007) and preventing the Secretary from applying the rule to freestanding LTCHs. Our model assumes that providers' response to the 25 percent rule going forward will be the same as it was in 2007. We estimate LTCHs' aggregate Medicare margin will be 0.5 percent in 2009.

How should Medicare payments change in 2010?

The Secretary has the discretion to update payments for LTCHs; there is no congressionally mandated update. In view of LTCHs' responsiveness to changes in payments, we expect growth in costs will continue to slow if

**TABLE
2G-5**

Medicare margins, by type of LTCH

Type of LTCH	TEFRA				PPS				
	1999	2000	2001	2002	2003	2004	2005	2006	2007
All	-1.7%	-1.7%	-1.6%	-0.2%	5.2%	9.0%	11.9%	9.7%	4.7%
Urban	-1.5	-1.5	-1.5	-0.1	5.3	9.3	12.0	10.0	5.1
Rural	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Freestanding	-1.7	-1.5	-1.3	0.1	5.4	8.1	11.2	8.9	5.1
Hospital within hospital	-1.6	-1.9	-2.1	-0.5	5.0	9.9	12.5	10.6	4.3
Nonprofit	-1.3	-2.9	-1.8	0.1	1.9	6.8	9.1	6.5	1.5
For profit	-0.9	-0.9	-1.4	-0.1	6.3	10.0	13.1	11.0	5.8
Government	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Note: LTCH (long-term care hospital), TEFRA (Tax Equity and Fiscal Responsibility Act of 1982), PPS (prospective payment system), N/A (not available). Rural facilities' margins are not presented because the number of rural facilities is very small. Government-owned providers operate in a different context from other providers, so their margins are not necessarily comparable.

Source: MedPAC analysis of cost report data from CMS.

Medicare continues to put fiscal pressure on LTCHs. CMS's latest forecast of cost growth (the market basket) for 2010 is 2.9 percent.

In assessing projected increases in providers' costs, the Commission also takes into account improvements in productivity. Competitive markets demand continual improvements in productivity from workers and firms. These workers and firms pay the taxes used to finance Medicare. Medicare's payment systems should exert the same pressure on providers of health services. The Commission begins its deliberations with the expectation that Medicare should benefit from productivity gains in the economy at large (the 10-year average of productivity gains in the general economy, currently 1.3 percent). This factor links Medicare's expectations for efficiency to the gains achieved by the firms and workers who pay taxes that fund Medicare. The Commission's assessment of LTCHs' historical responsiveness to changes in payments, along with the other components of the update framework discussed above, suggests that it is reasonable to apply a productivity adjustment to the LTCH update to encourage LTCHs to produce a unit of service as efficiently as possible while maintaining quality.

Update recommendation

On the basis of our review of payment adequacy for LTCHs, the Commission recommends that the Secretary update LTCH payment rates by the rehabilitation, psychiatric, and LTCH market basket index less the Commission's adjustment for productivity growth (1.3 percent). Under current market basket assumptions, this recommendation would update the LTCH payment rates by 1.6 percent.

RECOMMENDATION 2G

The Secretary should update payment rates for long-term care hospitals for fiscal year 2010 by the projected rate of increase in the rehabilitation, psychiatric, and long-term care hospital market basket index less the Commission's adjustment for productivity growth.

RATIONALE 2G

In sum, growth in the number of LTCH cases per fee-for-service beneficiary has been stable, suggesting that access has been maintained. Growth in payments per case has slowed markedly but remains positive, while length of stay continues to decline. The evidence on quality is mostly positive. We are little concerned about access to

capital because of the moratorium on growth. These trends suggest that, although projected margins are small, LTCHs are able to operate within the current payment system.

IMPLICATIONS 2G

Spending

- Because CMS typically uses the market basket as a starting point for establishing updates to LTCH payments, this recommendation decreases federal program spending by between \$50 million and \$250 million in one year and by less than \$1 billion over five years.

Beneficiary and provider

- This recommendation is not expected to affect Medicare beneficiaries' access to care or providers' ability to furnish care. ■

Endnotes

- 1 A geometric mean is derived by multiplying all numbers in a set and raising that product to the exponent of one divided by the number of cases in the set. This statistic is useful for analyzing data that are skewed.
- 2 For the blended alternative, the LTCH per diem payment amount makes up more of the total payment amount as the patient's length of stay comes closer to the geometric mean length of stay for the LTC–DRG.
- 3 More information on the prospective payment system for LTCHs is available at http://medpac.gov/documents/MedPAC_Payment_Basics_08_LTCH.pdf.
- 4 Before fiscal year (FY) 2007, patients diagnosed with respiratory conditions requiring ventilator support were classified as LTC–DRG 475. Beginning in FY 2007, LTC–DRG 475 was deleted and replaced by LTC–DRG 565 and LTC–DRG 566 (respiratory system diagnosis with ventilator support for less than 96 hours).
- 5 In the Commission's analysis, episodes did not include the costs of readmission to the acute care hospital. That could have resulted in an understatement of the average costs of patients who did not use LTCHs, because these patients were more likely than LTCH users to be readmitted to the hospital. However, we compared LTCH users and nonusers without a readmission and found similar results: LTCH users without readmissions cost Medicare more for the total episode than patients without readmissions who used alternative settings. Among patients most likely to use LTCHs, we found a positive but statistically insignificant difference in total episode spending between LTCH users and nonusers without readmissions.
- 6 CMS has long been concerned that incentives under the acute care hospital PPS encourage hospitals to discharge costly patients to LTCHs—especially if an LTCH is located within the acute care hospital. Discharge of patients to LTCHs increases costs to the Medicare program by triggering two inpatient payments (one for the acute care hospital stay and one for the LTCH stay) for what otherwise might have been one inpatient stay (or one inpatient stay and one less costly stay in a skilled nursing facility or other post-acute setting). The Commission found that patients who use LTCHs have shorter acute care hospital stays than similar patients who do not use these facilities, suggesting that LTCHs substitute for at least part of the acute hospital stay. Early discharges may distort the acute inpatient PPS relative weights by reducing the costs of acute care hospitals that routinely discharge to LTCHs. To the extent that such distortion occurs, even after recalibration acute care hospital payments may be too low for some patients in areas without LTCHs.
- 7 Step-down units in acute care hospitals are generally described as able to furnish care for patients who need more monitoring than is typically provided in a medical or surgical unit but do not require the intensity of care provided in an intensive care unit.
- 8 New LTCHs and satellite facilities that were authorized by a certificate of need or that expended \$2.5 million (or 10 percent) of new hospital construction costs before December 29, 2007, are exempt.
- 9 CMS also requires that an HWH or satellite facility be independent and not influenced by the host hospital or related organization.
- 10 During the year, the HWH or satellite is paid the LTCH rate. If the facility is found to have been overpaid during retrospective settlement at the end of the cost report year, CMS collects the overpayment from future payments.
- 11 In some cases, septicemia may be developing in an acute care hospital patient but not diagnosed until after the patient is admitted to an LTCH. In such cases, the diagnosis of sepsis may be inappropriately attributed to the LTCH.
- 12 We used LTCH claims for 2004 through 2007 to identify patients with the four PSIs. Where relevant, the PSI software excludes patients who had any diagnosis before transfer to the LTCH that would trigger the PSI. The PSIs are risk adjusted so changes should not reflect a changing patient population.
- 13 About a third of all LTCH cases receive reduced payments under the short-stay outlier policy. Therefore, we assume that an increase in aggregate LTCH PPS payments due to changes in the federal rate will be less than CMS's update to the federal rate of 0.71 percent.
- 14 The MMSEA specified that the base rate for LTCH discharges occurring on or after April 1, 2008, and before July 1, 2008, would be the same as the base rate for discharges for the LTCH occurring during rate year (RY) 2007, thereby eliminating the 0.71 percent increase for the fourth quarter of RY 2008. CMS therefore applied the market basket increase for RY 2009 to the base rate that was in effect during the fourth quarter of RY 2008.

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CHAPTER

3

**The Medicare Advantage
program**

The Medicare Advantage program

Chapter summary

The Medicare Advantage (MA) program provides Medicare beneficiaries with an alternative to the fee-for-service (FFS) Medicare program. It enables them to choose a private plan to provide their health care. Those private plans can use alternative delivery systems and care management techniques, and—if paid appropriately—they have the incentive to innovate. The Commission supports private plans in the Medicare program but has concerns about the current MA payment system.

In our analyses of data on enrollment, availability, payments, benefits, and quality, we find:

- About 22 percent of Medicare beneficiaries were enrolled in MA plans in 2008. All beneficiaries have access to an MA plan in 2009, with an average of 34 plans available in each county. In 2009, 88 percent of Medicare beneficiaries have an HMO or local preferred provider organization plan in their county, and all beneficiaries have a private fee-for-service (PFFS) plan available.

In this chapter

- Current status of the MA program
- High benchmarks increase payments and distort incentives
- Conclusion

- In 2009, payments to MA plans continue to exceed what Medicare would spend for similar beneficiaries in FFS. MA payments per enrollee are projected to be 114 percent of comparable FFS spending for 2009, compared with 113 percent in 2008. This added cost contributes to the worsening long-range financial sustainability of the Medicare program.
- In aggregate, the MA program continues to be more costly than the traditional program. Plan bids for the traditional Medicare benefit package are 102 percent of FFS in 2009, compared with 101 percent of FFS in 2008. As an exception, HMOs continue to bid below FFS, bidding 98 percent of FFS in 2009.
- MA plans provide enhanced benefits to enrollees, but, except for HMOs (which finance a portion of those benefits through bids below FFS), the enhanced benefits are financed entirely by the Medicare program and by beneficiaries—and at a high cost. For example, each dollar’s worth of enhanced benefits in PFFS plans costs the Medicare program more than \$3.00.
- Quality is not uniform among MA plans or plan types. High-quality plans tend to be established HMOs; plans that are new in the MA program have lower performance on many measures.

We are concerned that the average MA bid for Medicare Part A and Part B services is above average FFS spending and increasing. Thus, in aggregate, enhanced benefits are funded by the taxpayers and all beneficiaries (whether they belong to MA plans or not), rather than being funded through savings achieved as a result of plan cost efficiencies. In addition, a portion of the value of the enhanced benefits consists of funds used for plan administration and profits and not direct health care services for beneficiaries. Paying a plan more than the cost for delivering the same services under the FFS system is not an efficient use of Medicare funds, particularly in the absence of evidence that such extra payments result in better quality compared to FFS.

To be clear, even though we are using the FFS Medicare spending level as a measure of parity for the MA program, it should not be taken as a conclusion that the Commission believes FFS Medicare is an efficient delivery system in most markets. In fact, much of our work is devoted to identifying inefficiencies in FFS Medicare and suggesting improvements to the program.

Current MA payment rates allow plans to be less cost efficient than they would be if they faced the financial pressure of payments closer to Medicare FFS levels. As the Commission has stated in the past, organizations are more likely to be efficient when they face financial pressure. The Medicare program needs to exert consistent financial pressure on both the FFS and MA programs, coupled with meaningful quality measurement and pay-for-performance programs, to maximize value for each dollar it spends. The Commission has made recommendations in previous years to further these aims in the MA program, and those recommendations are reiterated in this chapter. ■

The Medicare Advantage (MA) program allows Medicare beneficiaries to receive benefits from private plans rather than from the traditional fee-for-service (FFS) program. The Commission supports private plans in the Medicare program, as they enable beneficiaries to choose between the FFS Medicare program and the alternative delivery systems that private plans can provide. Private plans have greater ability to innovate and to use care management techniques and, if paid appropriately, would have the incentive to do so.

However, the Commission also supports financial neutrality between FFS and the MA program. Financial neutrality means that the Medicare program should pay the same amount for a defined set of services regardless of which Medicare option a beneficiary chooses. Currently, Medicare spends more under the MA program for similar beneficiaries than it does under FFS. This higher spending results in increased government outlays and beneficiary Part B premiums (including for those who are in traditional Medicare FFS) at a time when Medicare and its beneficiaries are under increasing financial stress. To encourage efficiency and innovation, MA plans need to be put under financial pressure, just as the Commission advocates for providers in the traditional FFS program.

Current status of the MA program

By some measures, the MA program appears to be successful, but excessive payment rates preclude the program from achieving desired efficiencies. MA plans are widely available to beneficiaries, plans provide enhanced benefits for their members, and MA enrollment continues to grow. However, taxpayers and beneficiaries in traditional FFS subsidize these benefits, often at a high cost.

Our analysis of the MA program uses the most recent data available and reports it by plan type. The plan types are:

- **HMOs and local preferred provider organizations (PPOs).** These plans have provider networks and can use tools such as selective contracting and utilization management to coordinate and manage care. These plans can choose to serve individual counties and can vary their premiums and benefits across counties.
- **Regional PPOs.** Regional PPOs are required to serve and offer a uniform benefit package and premium across designated regions made up of one or more states. They are the only plan type required to have

limits, or caps, on out-of-pocket expenditures. Regional PPOs have less extensive network requirements than local PPOs.

- **Private FFS (PFFS) plans (and plans tied to medical savings accounts (MSAs)).** These plans typically do not have provider networks. They use Medicare FFS payment rates, have fewer quality reporting requirements, and have less ability to coordinate care than other types of plans.
- **Coordinated care plans (CCPs).** CCP is a larger grouping, which includes all HMOs, local PPOs, and regional PPOs.

Two additional plan classifications cut across plan types. First are special needs plans (SNPs), which offer benefits packages tailored to specific populations (i.e., beneficiaries who are dually eligible for Medicare and Medicaid, are institutionalized, or have a chronic condition). SNPs must be CCPs. Second are employer group plans, which are available only to Medicare beneficiaries who are members of employer or union groups that contract with those plans. Employer group plans may be any plan type. Both SNPs and employer group plans are included in our plan data, with the exception of availability figures, as these plans are not available to all beneficiaries.

Plan enrollment grew in 2008

From November 2007 to November 2008, enrollment in MA plans grew by 16 percent, or 1.4 million enrollees (Table 3-1, p. 256). About 9.9 million Medicare beneficiaries, or 22 percent, are now enrolled in MA plans.

Enrollment patterns differ in urban and rural areas. The share of MA enrollment among urban Medicare beneficiaries (about 25 percent) continues to be greater than MA enrollment among Medicare beneficiaries residing in rural counties (about 13 percent), even though plan enrollment grew at a faster rate in rural areas (about 30 percent) than in urban areas (about 15 percent) between 2007 and 2008.¹ As of last year, 54 percent of rural plan enrollees were in PFFS plans (not shown in Table 3-1), compared with about 17 percent of urban enrollees.

Enrollment growth in 2008 continues the trend since 2003 (Figure 3-1, p. 256). Enrollment has more than doubled in the last five years. Some plan types have grown more rapidly than others. Since 2005, PFFS has grown 11-fold and CCPs have grown by 50 percent. This rapid PFFS growth has occurred at the same time this type of plan experienced a high rate of disenrollment. The Government

**TABLE
3-1**

Medicare Advantage enrollment grew rapidly in 2008

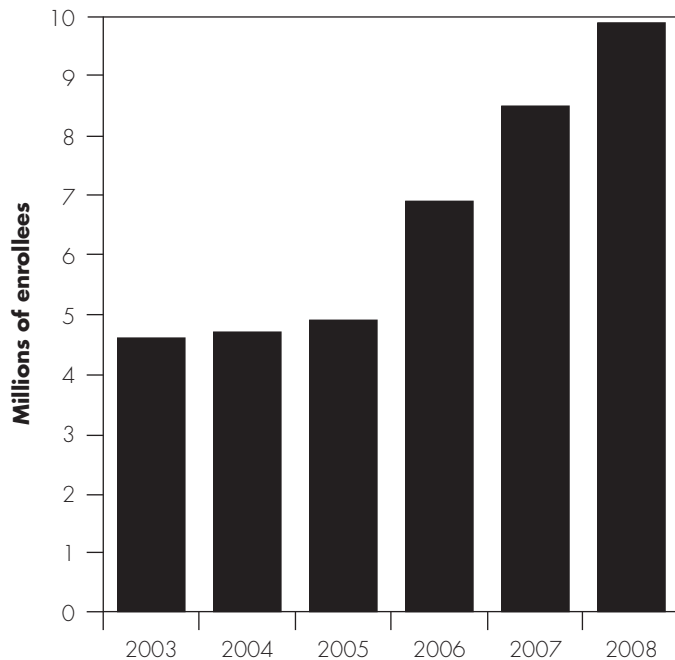
	MA enrollment (in millions)		Percent change	2008 MA enrollment as a share of total Medicare
	November 2007	November 2008		
Total	8.5	9.9	16%	22%
Urban	7.4	8.5	15	25
Rural	1.1	1.4	30	13
Plan type				
CCP	6.8	7.6	12	17
HMO	6.1	6.5	7	15
Local PPO	0.4	0.7	53	2
Regional PPO	0.2	0.3	37	1
PFFS	1.7	2.3	35	5
Restricted availability plans included in totals above				
SNPs*	1.1	1.3	21	3
Employer group*	1.3	1.7	30	4

Note: MA (Medicare Advantage), CCP (coordinated care plan), PPO (preferred provider organization), PFFS (private fee-for-service), SNPs (special needs plans). CCP includes HMO, local PPO, and regional PPO. Totals may not sum due to rounding.
* SNPs and employer group plans have restricted availability and their enrollment is included in the statistics by plan type and location. They are presented separately to provide a more complete picture of the MA program.

Source: MedPAC analysis of CMS enrollment files.

**FIGURE
3-1**

Medicare Advantage enrollment continues to grow rapidly



Source: CMS monthly Medicare Advantage enrollment reports.

Accountability Office (GAO) found that in 2007 the disenrollment rate for PFFS plans was 21 percent. This rate was much higher than for other types of plans, which averaged 9 percent (GAO 2008a). Examining this disparity in disenrollment rates may be a fruitful area for future analysis.

HMOs continue to enroll the most beneficiaries of all plan types, with 15 percent of all Medicare beneficiaries now in HMOs. All plan types (HMO, PPO, and PFFS) had enrollment growth in 2008. In 2008, PFFS had about 2.3 million enrollees, an increase of 35 percent since 2007. CCP enrollment grew 12 percent, or by about 800,000 enrollees since 2007. SNP enrollment and employer group enrollment have also continued to grow rapidly.

Plan availability remains high for 2009

Access to MA plans remains high in 2009, giving Medicare beneficiaries access to a large number of plans. While all beneficiaries have had access to some type of MA plan since 2006, local CCP plans are more widely available in 2009 than in previous years (Table 3-2). In 2009, 88 percent of Medicare beneficiaries have an HMO or local PPO plan operating in their county of residence,

**TABLE
3-2**

Access to Medicare Advantage plans remains high

Type of plan	Percent of beneficiaries with access to plan type				
	2005	2006	2007	2008	2009
All plan types	84%	100%	100%	100%	100%
CCP					
Local HMO or PPO	67	80	82	85	88
Regional PPO	N/A	87	87	87	91
PFFS	45	80	100	100	100
MSA	0	0	77	100	68
Zero-premium plans with Part D	N/A	73	86	88	94
Average number of MA plans open to all beneficiaries in a county	5	12	20	35	34

Note: CCP (coordinated care plan), PPO (preferred provider organization), N/A (not applicable), PFFS (private fee-for-service), MSA (medical savings account), MA (Medicare Advantage). These figures exclude special needs plans and employer-only plans. A zero-premium plan with Part D includes Part D coverage and has no premium beyond the Part B premium. Regional PPOs were created in 2006. Part D began in 2006.

Source: MedPAC analysis of MA/SNP Landscape File.

up from 85 percent in 2008 and 67 percent in 2005. Similarly, access to regional PPOs has also increased, up from 87 percent in 2008 to 91 percent in 2009. PFFS plans continue to be available to all beneficiaries.²

In 2009, high-deductible plans linked to MSAs are available to 68 percent of Medicare beneficiaries. This value represents a drop in availability, due to one plan that had been available nationwide in 2008 leaving the program. As of November 2008, about 3,000 Medicare beneficiaries were enrolled in MSA-linked plans. MSAs were available for the first time in 2007. (See MedPAC’s March 2007 report for a more detailed description of MSA plans.)

In 2009, 94 percent of Medicare beneficiaries have access to at least one MA plan that includes Part D drug coverage and has no premium (beyond the Medicare Part B premium) compared with 88 percent in 2008.

On average, 34 plans are offered in each county in 2009, down slightly from the historic high of 35 plans in 2008. The slight decrease is due to fewer PFFS choices, despite an increase in CCP options. The number of plans varies significantly across counties. For example, in Miami, beneficiaries can choose from 89 plans, while a few counties have only one.

The availability of SNPs (not shown in Table 3-2) remains largely stable and varies by type of special need. In 2009, 76 percent of beneficiaries reside in areas where

SNPs serve beneficiaries dually eligible for Medicare and Medicaid, 53 percent live where SNPs serve institutionalized beneficiaries, and 72 percent live where SNPs serve beneficiaries with chronic conditions. Only the last type decreased in availability—down from 89 percent in 2008 because of the withdrawal of one plan from the MA program.

Payment to plans continues to exceed Medicare FFS spending for similar beneficiaries in 2009

Plan payment rates are determined by the MA plan “bid” (the dollar amount the plan estimates will cover the Part A and Part B benefit for a beneficiary of average health status) and the “benchmark” in that payment area (the maximum amount of Medicare payment set by law for an MA plan to provide Part A and Part B benefits). If a plan’s bid is above the benchmark, then the plan’s payment rate is equal to the benchmark, and enrollees have to pay an additional premium equal to the difference. If a plan bid is below the benchmark, the plan’s MA payment rate is its bid plus 75 percent of the difference between the plan’s bid and its benchmark. Because benchmarks are often set well above what it costs Medicare to provide benefits to similar beneficiaries in the traditional FFS program, MA payment rates usually exceed FFS spending. In a later section, we examine why benchmarks are above FFS spending and what the ramifications are for the Medicare program. (Actual plan

**TABLE
3-3**

Medicare Advantage payments exceed FFS spending for all plan types in 2009

Plan type	Enrollment November 2008 (in millions)	Percent of FFS spending in 2009		
		Benchmarks	Bids	Payments
All MA plans	9.9	118%	102%	114%
HMO	6.5	118	98	113
Local PPO	0.7	121	108	118
Regional PPO	0.3	114	106	112
PFFS	2.3	120	113	118
Restricted availability plans included in totals above				
SNP*	1.3	122	99	116
Employer groups*	1.7	117	109	115

Note: FFS (fee-for-service), MA (Medicare Advantage), PPO (preferred provider organization), PFFS (private fee-for-service), SNP (special needs plan). Benchmarks are the maximum Medicare program payments for MA plans. FFS spending by county is estimated using the 2009 MA rate book. Spending related to the double payment for indirect medical education payments made to teaching hospitals was removed. Totals may not sum due to rounding.
*SNPs and employer group plans have restricted availability and their enrollment is included in the statistics by plan type. They are presented separately to provide a more complete picture of the MA program.

Source: MedPAC analysis of data from CMS on plan bids, enrollment, benchmarks, and fee-for-service expenditures.

payments, as opposed to payment rates, are risk adjusted. A more detailed description of the MA program payment system can be found at http://www.medpac.gov/documents/MedPAC_Payment_Basics_08_MA.pdf.)

We estimate that, on average, 2009 MA benchmarks will be 118 percent of spending in Medicare’s traditional FFS program, bids will be 102 percent of FFS spending, and payments will be 114 percent of FFS spending (Table 3-3). (Benchmarks, bids, and payments are weighted by plan enrollment by county to estimate overall averages and averages by plan type.) Last year we estimated that, for 2008, benchmarks, bids, and program payments would be, respectively, 118 percent, 101 percent, and 113 percent. In 2009, the Medicare program is paying about \$12 billion more for the beneficiaries enrolled in MA plans than it would have spent if they were in FFS Medicare. (We include plans in Puerto Rico in our totals although the MA market there has some unusual characteristics. The statute set benchmarks in Puerto Rico effectively at 180 percent of FFS expenditures. Excluding Puerto Rico from the overall statistics in the updated analysis results in benchmarks of 117 percent (rather than 118 percent) of FFS and puts MA payments at 113 percent (rather than 114 percent) of FFS.)

Benchmarks by plan type vary depending on the counties the plans serve and where they draw their enrollment. By law, certain counties were given higher benchmarks to increase plan availability. Those counties, called “floor”

counties, have benchmarks that average 120 percent of FFS spending, whereas nonfloor counties’ benchmarks average 112 percent of FFS spending. Local PPOs and PFFS plans tend to operate in counties with higher benchmarks than other plan types. Local PPOs draw more heavily from urban floor counties and PFFS plans draw more heavily from rural floor counties. SNPs have the highest benchmarks relative to FFS because they draw heavily from Puerto Rico, which has very high benchmarks relative to FFS (180 percent).

Plan bids also vary by plan type from the overall average of 102 percent of FFS spending. We estimate that HMO bids were on average 98 percent of FFS spending. This suggests that HMOs can provide Part A and Part B services for less than the cost of FFS. Plan bid averages for other plan types exceeded the overall average. PFFS plan bids average 113 percent of FFS, an increase from 108 percent in 2008.

In 2009, the ratio of payments relative to FFS spending will vary by the type of MA plan, but the ratios for all plan types are substantially higher than 100 percent. We estimate that 2009 payments to plans overall will average 114 percent of FFS spending. HMO payments are estimated to average 113 percent of FFS, while payments to PFFS plans are estimated to average 118 percent. These payment ratios are each a percentage point higher than we estimated for 2008.³

We separately analyzed bids and payments to SNPs and employer group plans, because their bidding behavior differs from that of other plan types. Payments to SNPs are estimated to average 16 percent above FFS spending because the plans have high benchmarks. Notably, 86 percent of SNP enrollees are in HMOs, but the average SNP payment is higher than that of HMOs as a group because, in 2008, about 16 percent of all SNP enrollees lived in Puerto Rico, which has high benchmarks. (Average SNP benchmarks, without Puerto Rico, are projected to be 117 percent rather than 122 percent; SNP program payment levels would have been projected to be 112 percent rather than 116 percent of FFS if Puerto Rico had been excluded.)

Employer group plans consistently bid higher than plans open to all Medicare beneficiaries. In aggregate, their bids are 9 percent above FFS spending—higher than all but PFFS plans—and their payments are estimated to average 15 percent above FFS spending. The dynamic of the bidding process for employer group plans is more complicated, because these plans can negotiate the specific benefits and premiums with employers after the Medicare bidding process is complete. Conceptually, the closer the bid is to the benchmark the better it is for the plans and the employer, because a higher bid brings in more revenue from Medicare, potentially offsetting expenses that would have required a higher pay-in from employers. Excluding the employer group plans from our calculations would lower the average MA bid to 100 percent of FFS from 102 percent and would lower the average HMO bid from 98 percent to 96 percent.

Enhanced benefits are common but costly for Medicare

Enhanced benefits—benefits beyond those provided under traditional FFS Medicare—are built into the MA program payment system. As described above, when a plan bids below the payment area benchmark, 75 percent of the difference between the plan’s bid and the benchmark—both adjusted for the health status of the plan’s projected enrollees—is paid to the plan, but the plan must use that amount to fund enhancement of the MA benefit for its enrollees.⁴ The remaining 25 percent of the difference is deducted from the benchmark to compute the total plan payment. (For example, if a payment area’s benchmark is 110 percent of FFS and a plan serving the area bids 100 percent of FFS, 7.5 percentage points of the difference would be used to fund benefit enhancements and 2.5 percentage points would be subtracted from the

benchmark to yield a payment to the plan of 107.5 percent of FFS.) The enhancements to the benefit package that the law allows MA plans to provide are:

- reduction of cost sharing for Medicare Part A and Part B services;
- provision of added, non-Medicare benefits, such as routine dental and vision care;
- reduction of the Part D premium of a Medicare Advantage–Prescription Drug (MA–PD) plan;
- enhancement of the drug benefit in an MA–PD plan; or
- reduction of the member’s Part B premium.

By far, the most common benefit enhancement by dollar value is the reduction of cost sharing for Medicare Part A and Part B services—that is, lower out-of-pocket spending at the point of service or lower premiums charged for Medicare cost sharing (Figure 3-2, p. 260). Provision of additional benefits is the next most common benefit enhancement.

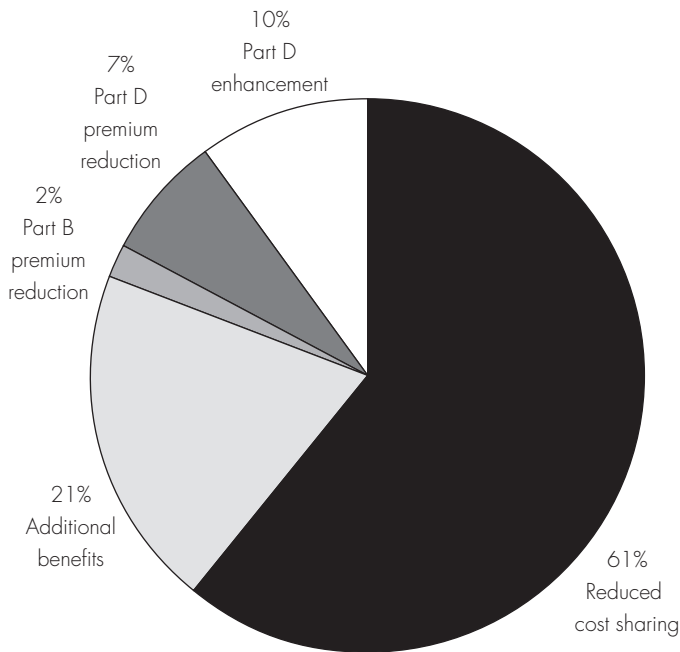
There are three components of the plan’s bid: medical expenses (estimated costs of providing Medicare Part A and Part B services to the expected enrollee population), administrative costs, and margins (profits or losses).⁵ The last two components—administrative costs and the plan margin—are referred to as the “load” or loading factor. A “fully loaded” cost includes all three bid components. Across all MA plans for 2009, the enrollment-weighted average loading factor is projected to be 13.4 percent. Thus, on average medical expenses would be 86.6 percent of the bid and the load would be 13.4 percent of the bid.

This projection could be an underestimate. The GAO found in 2006 that actual (not projected) profits were 6.6 percent and nonmedical expenses were 10.1 percent, for a load totaling 16.7 percent. At the time of the bid submissions for 2006, the load was projected to be 13.1 percent. A similar result was found for 2005 projected and actual profits and nonmedical expenses (GAO 2008b).

When the plan’s bid requires the plan to provide enhanced benefits, such benefits have a load factor applied. With respect to the reduction of Medicare Part A and Part B cost sharing and for the added, non-Medicare benefits, the load factor is the same for these enhancements as it is for Part A and Part B medical expenses in the bid. For the reduction in the Part B premium, no load factor applies. In the case of Part D benefits—premium reduction or benefit

FIGURE 3-2

Reduced cost sharing is the most common benefit enhancement



Note: Values are given as a percentage of the average total dollar value of benefit enhancements. Total may not sum to 100 percent due to rounding.

Source: CMS plan bids for 2009.

enhancement—a load factor is a component of the Part D bid, not the Part A and Part B bid.

The level of benefit enhancements available to MA enrollees varies by plan type (Table 3-4). As we mentioned earlier, MA plans in aggregate are paid more than Medicare would have spent if those enrollees were in FFS. The first column in Table 3-4 is the average payment to plans in excess of Medicare FFS, expressed in dollars per member per month (PMPM). For MA plans overall, the excess is \$103 PMPM. Fourteen dollars of that amount subsidizes the plan’s cost of providing the traditional Part A and Part B benefit, and the remainder (\$89 PMPM) is the enhanced benefit plus load (an amount that varies from \$0 to \$441 across non-SNP plans). The amount spent on enhanced benefits varies by plan type, with HMOs spending \$115 PMPM (benefit plus load), almost three times the \$40 PMPM for PFFS plans. Adjusting for the average loading factor (subtracting the average amount of administrative costs and margin associated with the enhanced benefits) reduces the \$89 PMPM to \$79 PMPM.

This amount is the estimated value of the enhanced benefits the average enrollee will receive.⁶ The last column in Table 3-4 shows payment above FFS divided by the value of the enhanced benefit; this value represents the Medicare subsidy per dollar of enhanced benefit—\$1.30 for all plans. In the case of HMOs, shown in the second row, because their bids for the Medicare benefit package are below Medicare FFS spending, the program subsidy is 97 cents for each \$1.00 of enhanced benefits. In the case of PFFS plans, on average, the program subsidy is \$3.26 for each dollar of enhanced benefits. In other words, HMOs are the only MA plan type that finances any part of enhanced benefits through plan efficiencies: 3 cents of every dollar. Enhanced benefits in other plan types are completely subsidized by Medicare.

Quality

Paying a plan more than the cost for delivering the same services under the FFS system is not an efficient use of Medicare funds, particularly in the absence of evidence that such extra payments result in better quality compared to FFS. However, making such a determination is difficult, because the indicators of quality differ greatly among plans and across plan types in MA, and we currently do not have a basis for comparing plan performance with the quality of care in FFS Medicare. The Commission is investigating how to compare quality in MA and FFS, and we plan to issue a report on that topic as mandated by the Congress in the Medicare Improvements for Patients and Providers Act of 2008 (MIPPA).

MA plan quality varies

At an aggregated level, Table 3-5 shows that performance by plan types differs according to CMS’s relative rankings of health plans. CMS ranks MA plans by using a star rating system that summarizes performance on the Healthcare Effectiveness Data and Information Set (HEDIS[®]), the Consumer Assessment of Health Care Providers and Systems, the Health Outcomes Survey (HOS), and other plan performance indicators that CMS monitors.⁷ The maximum rating is five stars for CMS’s “summary rating of health plan quality.” About 36 percent of all plans had a rating of 3.5 stars or better in 2008; 51 percent of established HMOs (those that have been Medicare contractors since 2003 or earlier) had a rating of 3.5 stars or better in 2008 compared with 21 percent of new HMOs (those that began contracting with Medicare in 2004 or later).⁸

**TABLE
3-4**

Enhanced benefits and Medicare subsidy differ by plan type, 2009

Plan type	Payment above FFS (per member per month)	Enhanced benefit (per member per month)		Medicare subsidy per dollar of enhanced benefits
		Benefit plus load	Benefit only	
All MA plans	\$103	\$89	\$79	\$1.30
HMO	99	115	102	0.97
Local PPO	111	65	58	1.91
Regional PPO	87	44	39	2.23
PFFS	114	40	35	3.26

Note: FFS (fee-for-service), MA (Medicare Advantage), PPO (preferred provider organization), PFFS (private fee-for-service). Load is the sum of projected administrative costs and profits from plan bids. Medicare subsidy is the payment above FFS divided by benefit. The benefit only column slightly overstates the net value because we do not take into consideration the Part D load when the benefit enhancement is a drug benefit enhancement.

Source: MedPAC analysis of data from CMS on plan bids, enrollment, benchmarks, and fee-for-service expenditures.

PPOs and PFFS plans are subject to different quality reporting requirements than HMOs. Non-HMO plans are currently not permitted to use medical record review for reporting their performance on certain HEDIS measures. This situation will change in 2010, when all plan types will use medical record review for certain measures. In Table 3-6 (p. 262), for example, the hemoglobin A1c testing is a measure for which HMOs use medical record review. Because HEDIS scores are a component of the CMS star rating system, the potentially lower HEDIS scores of non-HMO plans for the 13 measures (out of 48 total measures in 2008) that are “hybrid” measures (those for which medical record review only occurs among HMOs) also affect the plans’ CMS star ratings.

HEDIS

The pattern of quality differences between established and new HMOs is further illustrated by comparing plan performance on HEDIS measures—a set of process and outcomes measures that plans report. As was the case last year for year-to-year changes, established plans showed more improvement between 2007 and 2008 than newer plans (Table 3-5). Comparing the simple average score across all plans reporting a measure for each year, 75 percent of established HMOs showed improvement for 38 HEDIS measures for which we have data in each year, compared to a little over 50 percent for newer HMOs that can be compared to the set of established plans (i.e., HMOs that are new to the MA program reporting on the same measures). By contrast, commercial HMOs showed more improvement in average HEDIS scores, as was true last year (NCQA 2008b).

**TABLE
3-5**

Aggregate MA quality differs by plan type

Plan type	Percent of plans with a CMS rating of 3.5 stars or above	Percent of 38 HEDIS® measures showing improvement (2007–2008)
All MA plans	36%	40%
HMO		
Established	51	75
New	21	50
Plans subject to different reporting requirements		
PPO	27*	N/A
PFFS	N/A*†	N/A

Note: MA (Medicare Advantage), HEDIS® (Healthcare Effectiveness Data and Information Set), PPO (preferred provider organization), PFFS (private fee-for-service), N/A (not available). Established HMOs are plans beginning Medicare operations in 2003 or earlier; new HMOs are plans beginning as Medicare contractors in 2004 or later. CMS’s maximum star rating is 5.0, with 4.0 defined as very good and 3.0 as good. Rating shown is for “summary rating of health plan quality.” Out of 616 plans in 2008, 336 participated in HEDIS® reporting (including 14 out of 47 PFFS plans that reported on a voluntary basis). Not all plans report every HEDIS® measure. *For some HEDIS® measures, HMOs supplement their administrative information with medical record review to potentially improve their scores, while PPOs and PFFS plans currently are not permitted to use medical record information. Because the CMS star ratings include performance on HEDIS® measures, PPO and PFFS star ratings are affected by their inability to use medical record information for the 13 HEDIS® measures (out of 41 total effectiveness of care measures in 2008) that are “hybrid” measures. † Only 11 PFFS plans have star ratings in the CMS data, with one plan at 3.5 and the rest below.

Source: MedPAC analysis of HEDIS® public use files and CMS plan ratings.

**TABLE
3-6**

MA performance on individual quality measures differs by plan type

HEDIS® 2008 rates on selected individual measures for reporting plans

Plan type	HbA1c testing*	Annual monitoring for patients on persistent medications	Breast cancer screening, ages 52-69	Glaucoma screening
All MA plans	86%	85%	67%	60%
HMO				
Established	90	86	71	64
New	85	81	62	51
Plans subject to different reporting requirements				
PPO	82*	87	65	62
PFFS	77*	81	57	48

Note: MA (Medicare Advantage), HEDIS® (Healthcare Effectiveness Data and Information Set), HbA1c (hemoglobin A1c), PPO (preferred provider organization), PFFS (private fee-for-service), N/A (not available). Established HMOs are plans beginning Medicare operations in 2003 or earlier; new HMOs are plans beginning as Medicare contractors in 2004 or later. Out of 616 plans in 2008, 336 participated in HEDIS® reporting (including 14 out of 47 PFFS plans that reported on a voluntary basis). Not all plans report every HEDIS® measure. All 336 plans reported the HbA1c testing measure; 97 percent reported the monitoring of medications measure; 91 percent reported the breast cancer screening rate; and 94 percent reported the glaucoma measure.

*The HbA1c testing measure is a “hybrid” measure for which HMOs supplement their administrative information with medical record review to potentially improve their scores, while PPOs and PFFS plans currently are not permitted to use medical record information.

Source: MedPAC analysis of HEDIS® public use files and CMS plan ratings.

Performance varies across plan types within MA (Table 3-6). The MA data for 2008 include HEDIS scores reported by HMOs, PPOs, and—for the first time—PFFS plans (with PFFS reporting on a voluntary basis). The scores for established HMOs on individual HEDIS measures are generally higher than for each of the other plan categories (in part because of the inability of PPO and PFFS plans to use medical record information in reporting their scores for hybrid measures). However, for some measures PPO plans have scores equal to or higher than HMO plans, which may reflect the administrative capabilities of PPO plans in tracking claims data. We would also note that about half of the PPOs in the HEDIS data are operated by organizations that offer Medicare HMOs in the same geographic area or an overlapping area. As in past years, we also continue to see large variations in reported HEDIS scores across plans within plan types (not shown in Table 3-6).

There are three important caveats to consider when interpreting the overall performance of the MA program as measured by average HEDIS scores:

- First, there are many new plans in the 2008 data, and newer plans have poorer performance on many measures. For 2008, 69 plans reported Medicare HEDIS results for the first time, and another 119

plans began Medicare operations in 2004 or later, with the remaining 148 plans—less than half the total of 336—being established plans.

- Second, scores are not enrollment weighted. Almost all of the established plans are HMOs, and they continue to serve the majority of MA enrollees in 2008. Thus, enrollment weighting would raise the overall score. However, most of the enrollment growth is in newer plans, which again makes interpretation of overall score changes between years more complicated.
- Third, not all MA plans report HEDIS data. Plans must have participated in the program for a certain period of time and must meet a minimum enrollment threshold before they are required to report HEDIS measures. Almost half of current MA plans—280 out of 616 as of 2008—are not yet reporting HEDIS data, including 145 HMO plans. Thus, the overall scores do not represent the total picture of MA plan quality.

PFFS plans will not be required to report HEDIS results until 2010. However, PFFS plans currently may voluntarily report HEDIS results, and CMS has encouraged plans to do so. The 2008 HEDIS public use files from CMS contain PFFS reporting on many measures

from 14 PFFS contracts. The 14 PFFS plans account for about half of the total enrollment in PFFS. For each of 41 care-related HEDIS measures, on average about half of the 14 PFFS plans are reporting a score. HEDIS scores for PFFS are generally lower than scores for other plan types.

HOS results

The HOS measures changes in the health status of plan enrollees over a two-year period. It identifies which plans had better than expected improvement over the two years, which plans performed as expected, and which plans performed worse than expected.⁹ Ninety percent of MA plans have outcomes within the expected range. Looking at the most recent cohort, which measured change in health status from 2005 to 2007, 7 plans had better than expected physical health outcomes and 11 were worse; 8 plans had better than expected mental health outcomes and 6 were worse. This result is an improvement over the 2004 to 2006 cohort for which the statistics were: 2 plans of 151 had better than expected physical health outcomes and 13 were worse; 5 plans had better than expected mental health outcomes and 7 were worse.

National Committee for Quality Assurance overall performance of health plans on quality measures

The National Committee for Quality Assurance (NCQA), in conjunction with *US News and World Report*, publishes a national ranking of health plans based on composite scores derived from HEDIS and other sources (NCQA 2008a). For 2008, the highest ranked Medicare plans tended to be long-established Medicare plans, with all having at least six years of Medicare contract experience. They all have commercial membership and generally are top-rated commercial plans as well. The top-ranked Medicare plans tended to be group models (10 of 15), with two staff model plans and three independent practice associations. This result is consistent with research showing that integrated models are more likely to provide higher quality care (Gillies et al. 2006).

There are 15 plans in the lowest decile of plan performance in the NCQA national ranking of Medicare plans. Of those plans, seven are Medicare-only plans and three others have no commercial enrollment, with only government-sponsored enrollees, such as Medicaid. Also 10 of these plans are new to the MA program—they have Medicare contracts dating from 2004 or later. This pattern of newer plans having worse performance than established plans is consistent with other measures we have discussed.

Implications of the findings on quality

These findings reinforce the Commission's recommendations related to quality in MA. The Commission has recommended that the MA payment system incorporate a pay-for-performance component. It will signal that the Medicare program expects MA plans to provide high-quality care and improve the quality of care over time. While payment policy in the MA program has led to growth in the number of plans available, growth in access to plans across the country, and increased enrollment, the additional funding has not necessarily resulted in cost containment or better quality of care for enrollees. Much of the enrollment growth is in new plans, which are not showing improvement in quality (NCQA 2008b).

The Commission also recommended that the Secretary collect data that enable a comparison of the MA sector with the Medicare FFS sector. Without these data, beneficiaries cannot factor in quality when choosing between enrolling in MA and staying in traditional FFS Medicare. These data are also important for evaluating both the MA program and FFS and establishing goals for improving each sector. As we have noted, this subject will be addressed in a separate report that responds to a congressional request in MIPPA.

High benchmarks increase payments and distort incentives

Currently, Medicare pays MA plans 14 percent more than it would spend for similar beneficiaries in FFS, pays a subsidy of \$3.26 for each dollar of enhanced benefits a member receives in a PFFS plan, and has not seen a significant improvement in MA plan quality over the last couple of years (NCQA 2008b). Why is the MA program producing so little measurable improvement in quality for so much payment? The crucial factor is that the benchmarks that are used as bidding targets are set too high, and plan payments are not linked to performance. High benchmarks are the result of legislation that sought to increase plan participation and reflect a method for updating benchmarks that can only raise benchmarks but never lower them. High benchmarks lead to distorted incentives for the MA program.

Why benchmarks are high

By design, the statutorily set benchmarks in some localities exceeded FFS spending to encourage plans to

enter the MA program in areas they had not traditionally served. The process for setting benchmarks is rooted in a payment system for Medicare's private plan option established in 1997 legislation and modified through subsequent legislation. As a result, MA payment rates in the vast majority of counties are now higher than local per capita spending in the FFS program.

Payment floors set above FFS spending

Past legislative actions increased certain counties' benchmark rates. For example, legislation mandated benchmark floors—a minimum amount for a county's benchmark. By design, the floor rate exceeded FFS spending in many counties to attract plans to areas with lower than average FFS spending. There are two payment floors: a general floor applicable to all counties, and a higher "urban" floor, which applies only to counties in metropolitan areas with more than 250,000 residents.

The benchmark adjustment system never lowers benchmarks

CMS is required to make two adjustments to county benchmarks: updates and rebasing. Both can only raise county benchmarks, never lower them.¹⁰

CMS updates MA county-level benchmarks annually. By law, each county benchmark is increased from its previous level by the greater of 2 percent or the national per capita MA growth percentage. The national per capita MA growth percentage is CMS's estimate of total Medicare per capita spending growth for the coming year, adjusted to correct for past estimating errors. A benchmark can only be raised from its previous level; it cannot be decreased.

In "rebasings" years, benchmarks can be increased by even more than the update calculation. CMS calculates a rate equal to 100 percent of the per capita FFS spending for each county. If that new rate is higher than the updated rate, it becomes the new county benchmark. (CMS must rebase the estimates of county per capita FFS spending at least every three years but may rebase more frequently if it chooses. The last three rebasing years have been for the 2005, 2007, and 2009 MA payment rates.)

Rebasing goes only in one direction—it can only increase the benchmarks, which can result in an anomalous estimate that will affect all future rates for that county. An anomalous estimate could result because a spike may occur in FFS spending that is not representative of the long-term trend for the county. The reasons for an unusually high spending year could range from a

particularly severe flu epidemic, to random year-to-year variation (an especially common occurrence in counties with small numbers of beneficiaries), to an unusual amount of inappropriate or fraudulent claims.

For example, Miami-Dade County's benchmark increase for 2009 was 13 percent. Miami received this increase because its FFS spending was projected to rise from previous levels by this amount. (Spending is projected by using a five-year rolling average of FFS spending for county residents. The 2009 rebasing included two new years of data.) Miami spending data, however, include millions of dollars in payments for claims that have since been proven inappropriate. One case alone generated more than \$100 million in fraudulent claims (US Attorney 2008). The 2009 increase in the benchmark means that plans enrolling Miami beneficiaries will receive \$150 million to \$200 million more in MA payments in 2009 than they would have received if the benchmark had increased at the national growth rate.

Many counties have received benchmark updates based on FFS spending estimates that did not reflect their long-term trends. Regardless of the reason for the high FFS spending estimate, once a county's FFS spending level is rebased and increased, the county keeps its higher benchmark no matter how much subsequent FFS spending declines in that county. Currently, the Secretary of Health and Human Services does not have the authority to change either the update or the rebasing system. We plan to address this issue in a separate report the Congress has requested on the MA payment system.

High benchmarks distort incentives

In addition to increasing payments to MA plans, high benchmarks distort the incentives of the MA program and prevent it from achieving its true potential to innovate and achieve efficiencies.

Historically, private plans were included in Medicare to provide a mechanism for introducing innovation into the program while saving money for Medicare (the plans were paid 95 percent of FFS between 1982 and 1997). It was expected that private plans could achieve efficiencies by, for example, selectively contracting with efficient providers, managing the provision of services, and coordinating care—payment and delivery strategies that are not currently possible in traditional FFS Medicare. In addition, there was an expectation that more efficient MA practice patterns might eventually "spill over" into the FFS program, leading to greater efficiency there as

well. However, with payment levels significantly above traditional Medicare, the original concept of private plan efficiency linked to innovation has been lost. As a result, Medicare spending for the same care is considerably more in MA compared to FFS, and the enhanced benefits received by less than a quarter of all Medicare beneficiaries are, in aggregate, worth significantly less than the additional spending. At the extreme, instead of producing efficiency-enhancing innovation, MA's PFFS plans mimic FFS Medicare by design but cost 18 percent more.

The growth in less efficient plans heightens our concerns about equity issues that arise with MA relative to the traditional Medicare program, about equity for beneficiaries and taxpayers, and about ensuring a level playing field among the different MA plan types. The equity and efficiency issues are of particular concern when Medicare is not financially sustainable in the long run (described in depth in Chapter 1).

With MA benchmarks at their current levels, all beneficiaries, through their Part B premium—and all taxpayers, through general revenues—are subsidizing the MA enhanced benefits. The high MA benchmarks allow plans to be less efficient than they would be if they faced the financial pressure of benchmarks closer to Medicare FFS levels. As the Commission has stated in the past, organizations are more likely to be efficient when they face financial pressure, and the Medicare program needs to exert consistent financial pressure on the FFS and MA programs, coupled with meaningful quality measurement and pay-for-performance programs, to maximize the value it receives for the dollars it spends.

The Commission supports financial neutrality between payments in the traditional FFS program and MA program payments. Expressed in terms of the level of benchmarks for MA plans in the current bidding system, financial neutrality would mean that benchmarks should be set at 100 percent of Medicare FFS expenditures.

In our June 2005 report, the Commission made recommendations to address some of these problems, and recent law has embraced some of those recommendations (see text box, pp. 266–267).

Conclusion

Ideally, MA plans would provide enhanced benefits financed by their efficiency in providing the Medicare Part A and Part B benefit. If a private plan used savings from more efficient health care to provide lower cost sharing or enhanced benefits while maintaining quality, it would attract enrollees. Plans competing with each other based on furnishing health care at low cost and with high quality would promote efficiency. In a system in which plan payments are appropriately set and risk adjusted, a richer benefit package would generally signal that one plan was more efficient than a competing plan—and that a private plan offering enhanced benefits was more efficient than the traditional Medicare FFS program in the plan's market area. (We want to be clear that even though we use the FFS Medicare spending level as a measure of parity for the MA program, it should not be taken as a conclusion that the Commission believes FFS Medicare is an efficient delivery system in most markets. In fact, much of our work is devoted to identifying inefficiencies in FFS Medicare and suggesting improvements in the program.)

Our analysis finds that some plans are able to cover the same services as the traditional Medicare Part A and Part B benefit at a lower cost—namely, HMOs, which cover these services on average at 98 percent of Medicare FFS expenditures. Others, however, are much less efficient; for example, PFFS plan bids averaged 113 percent of FFS expenditures. High benchmarks and payment rules account for this misalignment with FFS spending.

Paying a plan more than FFS spending for delivering the same services is not an efficient use of Medicare funds in the absence of evidence that such payments result in better quality compared with FFS. We are concerned that the average MA bid for Medicare Part A and Part B services is above average FFS spending, which means that, on average, all enhanced benefits in the plan are funded by the Medicare program and not by plan efficiencies. In addition, a portion of the program payments used to fund enhanced benefits pay for plan administration and profits and not services for beneficiaries. ■

MedPAC's prior Medicare Advantage recommendations and Medicare Improvements for Patients and Providers Act of 2008 provisions

Medicare Advantage (MA) recommendations from the June 2005 *Report to the Congress: Issues in a Modernized Medicare Program* and subsequent legislation (in italics) are summarized below:

The Commission recommended that the Congress eliminate the stabilization fund for regional preferred provider organizations (PPOs). Authorization of the fund was one of several provisions intended to promote development of regional PPOs.

The Medicare Improvements for Patients and Providers Act of 2008 (MIPPA) eliminated \$1.8 billion of the initial funding amount, leaving the initial funding level at \$1.00 for the regional PPO stabilization fund through 2014.

The Commission recommended that the Congress remove the effect of payments for indirect medical education (IME) from the MA plan benchmarks. MA rates set at 100 percent of fee-for-service (FFS) include medical education payments, but Medicare makes separate IME payments to hospitals treating MA enrollees.

MIPPA, beginning in 2010, reduces each county benchmark by 0.6 percent annually until the total percentage reduction equals the percentage of total

FFS spending in the county attributable to IME payments to hospitals. The phaseout will be gradual, with some counties (e.g., in New York City, Boston, and Philadelphia) having phase-out periods lasting more than a decade. In the first year, however, the reduction will be broad based, as 92 percent of MA enrollees live in counties where the benchmark would be reduced by 0.6 percent. Including IME spending in the benchmarks in 2009 raised them by about 2.5 percent.

The Commission recommended that the Secretary calculate clinical measures for the FFS program that would permit CMS to compare the FFS program with MA plans. The Commission believes that more can be done to facilitate beneficiary choice and decision making by enabling a direct comparison between the quality of care in private plans and quality in the FFS system.

MIPPA mandated that the Commission should report on measures and methods for comparing Medicare FFS and MA plans on quality.

The Commission recommended that the Congress set the benchmarks CMS uses to evaluate MA plan bids at 100 percent of FFS costs. The Commission has consistently supported the concept of financial neutrality between payment rates for the FFS program and private plans.

MedPAC's prior Medicare Advantage recommendations and Medicare Improvements for Patients and Providers Act of 2008 provisions (cont.)

The Commission recognizes that changing MA plan payment rates to achieve financial neutrality too quickly may cause disruptions for beneficiaries and may have other unintended consequences. This recommendation would lower payments to plans in some areas, which may cause some plans to reduce the enhanced benefits they offer and their level of participation in the MA program—and reduce plan choice for some beneficiaries. The Congressional Budget Office (CBO) estimates that there would primarily be reductions in future MA growth rates rather than a loss of current members (Orszag 2007). The timing of the transition to a plan payment system that is financially neutral needs to take into account the effect on beneficiaries.

The Commission recommended that the Congress redirect the amounts retained in the Trust Funds for bids below the benchmarks to a fund that would redistribute the savings back to MA plans based on quality measures. Pay-for-performance should apply in MA to reward plans that provide higher quality care.

The Commission recommended that the Congress clarify that regional plans should submit bids that are standardized for the region's MA-eligible population. There can be distortions in competition between regional and local plans because of the different method used to determine benchmarks for regional PPOs in relation to the method used for other plans.

Additional provision in MIPPA

The Commission was concerned that rapid enrollment growth in private FFS (PFFS) plans was a manifestation that the benchmarks were high enough to allow inefficient plans to thrive, although they cost the Medicare program significantly more than the program would have paid if their enrollees had remained in FFS Medicare. In addition, the lack of a network limited the plans' ability to influence quality of care.

MIPPA imposes two new requirements on PFFS plans. Beginning in 2011, MIPPA requires that PFFS plans maintain a contracted network of providers, except in areas where there were fewer than two networked plans offered the previous year. (Regional PPOs do not count as networked providers in areas where they have been granted network exemptions by CMS.) MIPPA also requires PFFS plans to report on quality beginning in 2010. ■

Endnotes

- 1 We define urban counties as those counties classified as being in a metropolitan statistical area; all other counties we classify as rural counties. To match more closely the designation of nonfloor and floor counties (including the urban floor), we use the metropolitan statistical area status of counties as of 2002, before changes in the designation of counties in 2003.
- 2 The availability of PFFS plans will likely drop substantially in 2011 when certain Medicare Improvements for Patients and Providers Act of 2008 (MIPPA) provisions become effective. (See text box on MA provisions in MIPPA, pp. 266–267.)
- 3 There is some interaction between FFS and MA that can affect the comparisons. The MA program can reduce expenditures in the Part D program, as we discuss in Chapter 4. Since bids for both stand-alone prescription drug plans and MA drug plan bids make up the overall national average Part D bid and affect Medicare’s payments to drug plan sponsors, lower average bids by MA plans somewhat reduce federal program spending for Part D. Second, CMS has observed differences in coding of diagnoses between MA and the FFS sector. Because MA plan payments are adjusted for the health status of each enrollee based on these codes, to the extent that there is “undercoding” in FFS relative to MA, our ratios of MA payments in relation to FFS expenditures may be understated. (See CMS 2009.)
- 4 A plan can also choose to offer benefits beyond the traditional Medicare benefit package funded by beneficiary premiums. The following discussion of enhanced benefits does not include premium-funded benefits.
- 5 A plan’s administrative costs include items such as member service activities, provider contracting, provider relations, medical management, quality improvement activities, information systems, claims processing, marketing, and other nonmedical costs. Administrative costs vary from plan to plan. PFFS plans are likely to have high administrative costs associated with claims processing but little if any costs associated with provider contracting. Generally, an HMO with salaried physicians that owns its own hospitals has little in the way of claims processing costs, while a PPO has both claims processing and provider contracting costs. Plans that serve employer-group enrollees exclusively generally have much lower marketing costs than plans that enroll Medicare beneficiaries individually.
- 6 Because we do not take into account the loading factor for Part D benefits that is determined through the Part D bid, the \$79 net figure is slightly higher than if we had applied the Part D loading factor to the benefit enhancements of drug coverage. If the Part D loading factor is similar to the MA bid loading factor, the net value of enhanced benefits would be in the range of \$77 across all plans.
- 7 HEDIS is a registered trademark of the National Committee for Quality Assurance.
- 8 No plan received the full five-star rating for 2008, but 10 plans received a 4.5 rating. The 10 plans have the following characteristics: The plans are established plans including three cost-reimbursed HMO contracts dating from the 1980s. Six of the 10 plans are group model plans, 1 is a staff model, 1 is a mixed model, and 2 are independent practice associations.

These plans offer fewer enhanced benefits than some of their competitors, yet beneficiaries choose them anyway. Cost-reimbursed plans, for example, must charge a premium for any benefit enhancement, including the reduction of cost sharing for Medicare-covered services. The top-ranked MA plans do not have zero-premium benefit packages even when competing Medicare plans in their markets offer such plans. Because the most highly ranked plans are not in the most competitive markets, it may also suggest that plan competition does not necessarily guarantee improved quality (as shown by Scanlon and colleagues (2008)), though an alternative explanation may be that the highly ranked plans are competing on the basis of quality more than on cost.
- 9 In reporting HOS results, plans are classified as performing within expected ranges unless (1) there are statistically significant differences among plans in the measures for improvement or decline in physical or mental health, and (2) there are plans in which the difference exceeds a certain threshold. Plans will be designated as “outliers” if the first condition is met, and if a given plan’s results differ from the national average results across all plans by a certain order of magnitude (specifically, when the result of dividing the plan deviation by the standard error of the deviation is greater than 2 or less than –2 (Rogers et al. 2004).)
- 10 Two factors lead to reductions in benchmarks: the phasing out of the indirect medical education amounts in the benchmarks that we discuss in this chapter, and the phasing out of the budget-neutrality adjustment that has served to increase benchmarks. The last year in which the budget-neutrality adjustment will apply is 2010. However, even taking these two factors into account, benchmarks would always be expected to rise because of the statutory provision requiring an increase of at least 2 percent each year in county benchmarks.

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CHAPTER 4

**A status report on
Part D for 2009**

A status report on Part D for 2009

Chapter summary

Part D uses competing private plans to deliver outpatient prescription drug benefits. Organizations that sponsor plans compete for market share by offering benefits that will meet beneficiaries' prescription drug needs at attractive premiums. Sponsors bear insurance risk for some of their enrollees' benefit spending. Under this approach, sponsors must balance enrollees' need for access to medications with the desire to make a reasonable financial return.

Each year, sponsors submit plan bids for providing Part D benefits. Part D sponsors may change plans' benefit designs, formularies, and cost-sharing requirements. Policymakers need to stay informed about changes to ensure that Part D meets the broader goal of giving beneficiaries access to appropriate drug therapies. Year-to-year changes in bids and enrollee premiums give policymakers information about how well sponsors are managing drug benefit costs for beneficiaries and for taxpayers.

In this chapter

- Background on Part D program design
- Patterns of enrollment in 2008
- Plan offerings for 2009
- Payments to plan sponsors
- Medication therapy management programs

This chapter describes Part D enrollment in 2008 and plan offerings for 2009: benefit designs, premiums, formularies, and cost-sharing requirements. The chapter also reports on one aspect of Part D intended to promote quality: medication therapy management programs (MTMPs).

Patterns of enrollment in 2008—As of January 2008, 90 percent of Medicare beneficiaries received some form of drug coverage. Fifty-eight percent of all Medicare beneficiaries enrolled in Part D plans; 32 percent had drug coverage at least as generous as Part D through employer-sponsored plans or other sources. Twenty-one percent of Medicare beneficiaries received Part D’s extra help with premiums and cost sharing (called the low-income subsidy (LIS)). An estimated 2.6 million beneficiaries eligible for the LIS were not enrolled to receive it (about 6 percent).

Plan offerings for 2009—In 2009, the number of stand-alone prescription drug plan (PDP) options declined by 7 percent, but beneficiaries can still choose among a median of 49 PDPs. Sponsors are offering 6 percent more Medicare Advantage–Prescription Drug plans (MA–PDs) than in 2008. MA–PDs provide combined medical and drug benefits, and they continue to be more likely than PDPs to include enhanced benefits (basic and supplemental drug coverage in one package).

For 2009, Part D premiums are significantly higher than in 2008. If enrollees stayed in the same plan, they saw premiums rise by an average of \$6 to nearly \$31 per month (24 percent). However, CMS reassigned some LIS enrollees to lower premium plans and other individuals changed plans voluntarily, which dampens the average increase.

Each plan sponsor manages a formulary—the list of drugs it may cover, cost-sharing tiers, and whether a drug is subject to tools such as prior authorization. For 2009, we estimate that more than 80 percent of enrollees are in plans that use one generic tier and separate tiers for preferred and nonpreferred brand-name drugs. More than 80 percent of enrollees have a specialty tier for high-cost drugs or biologics. For 2009, the median enrollee

in a plan with a specialty tier must pay 33 percent coinsurance for those drugs. Cost sharing tended to rise among PDPs for 2009. Copays for the median enrollee in a PDP rose to \$7 per 30-day supply of a generic drug, \$38 for a preferred brand-name drug, and \$75 for a nonpreferred brand. MA–PD cost sharing was more likely to remain at 2008 levels, with the exception of increased coinsurance for specialty-tier drugs.

LIS premium subsidies and beneficiary reassignments—For 2009, fewer premium-free PDPs will be available to enrollees who receive the LIS: 308 plans qualified, compared with 495 in 2008. CMS moved to a new method for setting the maximum amount Medicare will pay in premiums on behalf of LIS enrollees.

CMS estimated that it needed to reassign about 1.6 million LIS enrollees to new plans for individuals to avoid paying some of the premium: nearly 1.2 million to a plan offered by a different sponsor and just under 0.5 million to a plan offered by the same sponsor. Another 0.6 million LIS enrollees previously picked a plan on their own and were responsible for switching themselves into a qualifying plan for 2009 or begin paying part of the premium. When beneficiaries switch to a plan in which the person’s current drugs are not listed on the new plan’s formulary, the beneficiary needs to obtain transition supplies of the drug, seek a formulary exception, pay for the drug out of pocket, or change medication.

Medication therapy management programs—PDPs and MA–PDs must implement MTMPs to improve the quality of pharmaceutical care for enrollees with multiple chronic conditions and high drug costs. Costs for MTMPs are included as an administrative expense in plan bids. All PDPs and MA–PDs are required to offer MTMPs to enrollees with several chronic conditions who take multiple drugs and are expected to average at least \$4,000 per year in drug costs. CMS does not provide much guidance on designing or implementing these programs.

In conducting our review of MTMPs, we examined research evaluating those programs and available data on MTMPs operating in Part D. We also conducted interviews with CMS, pharmacists, health plan sponsors, pharmacies, trade associations, and companies that provide medication therapy management services under contract to sponsors. MTMPs differ in the number and type of chronic conditions and prescriptions a beneficiary must have to be eligible, the kinds of interventions provided to enrollees, and the outcomes sponsors measure. A small percentage of beneficiaries are enrolled in MTMPs, and we do not have sufficient data to determine whether the programs are increasing the quality of pharmaceutical care to them.

A number of interviewees want CMS to require plan sponsors to measure and report specific outcomes. More standardized collection and reporting of outcome measures could be used to determine whether programs are meeting their goals of improving the quality of pharmaceutical care, what patient populations benefit from these programs, and what interventions are most successful. In October 2008, CMS announced that it had contracted with Optimal Solutions to help identify standardized outcomes that all Part D sponsors could measure and to help the agency identify MTMPs that have the most positive impact on medication use. This research has the potential to answer many important questions about Part D medication therapy management. The Commission will closely follow the results, but we are unlikely to know the results from this study for several years. ■

In its fourth year of operation, Medicare Part D has more than 25 million enrollees and helps pay for their drugs at an annual cost of about \$50 billion. Part D uses competing private plans to deliver outpatient prescription drug benefits. Part D was based on the premise that sponsoring organizations would compete for market share by offering plans with benefits that would meet beneficiaries' prescription drug needs at attractive premiums. While Medicare bears much of the risk for the benefit, sponsors also bear insurance risk for some of their enrollees' benefit spending. Under this approach, sponsors must balance enrollees' need for access to medications with the desire to make a reasonable financial return. The broader goal for Medicare is to ensure that program beneficiaries have access to appropriate drug therapies at a cost that is reasonable to enrollees and to taxpayers.

This chapter examines Part D program performance in terms of beneficiary enrollment for 2008 and plan benefit designs for 2009. We also report on one aspect of Part D that is intended to promote quality, known as medication therapy management.

Background on Part D program design

Unlike the traditional Medicare fee-for-service program, Medicare Part D sets prices for providing drug benefits through competition among private plans. A potential advantage of this design is that CMS does not have to set prices administratively. Experience shows the difficulties of administratively setting Medicare prices accurately and making refinements as needed. Mispricing has led to misallocation of investment resources and has had large effects on the organizational structure and cost of health care delivery over time.¹

Nevertheless, Part D's competitive approach has limitations and must be monitored to ensure that it works as intended. Over time, the success of Part D may depend on beneficiaries' willingness to switch among competing plans. When the program began in 2006, beneficiaries tended to choose plans with low premiums, which led many sponsors to bid more competitively for 2007. In later years, plans with the most enrollees have had some of the largest premium increases, yet only about 6 percent of enrollees have switched plans voluntarily each year. (This rate is comparable to the rate of plan switching observed in the Federal Employees Health Benefits program.) While large in percentage terms, the dollar amount of premium

increases typically has been \$5 to \$10 per month—perhaps not enough to justify incurring other costs of switching plans. There may be a tipping point after which higher premiums will lead enrollees to reconsider their choices. If not, sponsors will have less incentive to compete on premiums, making it difficult for Part D to achieve program savings, as intended.

One central reason why relatively few Part D enrollees have switched plans voluntarily may be that most are satisfied with the program (CMS 2008b). Medicare subsidizes Part D enrollees' drug spending, thereby saving most beneficiaries money. CMS estimated that in 2007, enrollees saved an average of \$1,200 compared with individuals without prescription drug coverage. Enrollees who receive extra help with premiums and cost sharing through the low-income subsidy (LIS) saved an average of \$3,350, according to CMS (CMS 2007).

Many beneficiaries who receive the program's LIS follow a different enrollment path, which can have implications for Part D program performance.² For 2006, LIS enrollees who did not choose a plan for themselves were randomly assigned to plans with premiums at or below regional benchmarks. So long as a plan's premium falls below the required benchmark, LIS beneficiaries pay reduced or no premiums and cost sharing if they remain in the plan. However, LIS beneficiaries may be reassigned to a different plan each year if their current plan's premium is too high.³ An original goal of this approach was to provide an incentive for plan sponsors to bid low enough to qualify as premium-free to LIS beneficiaries and thereby gain or retain those enrollees.

The chance that enrollees may switch plans—either because they believe their premium is higher than the plan's value to them or through CMS's reassignment process—was intended to give plan sponsors an incentive to control drug spending and bid low. Beneficiaries who do not receive the LIS gain from this approach if they can find an alternative plan that provides their medications at a more affordable premium. Individuals who receive the LIS gain from the approach insofar as it makes continuing Part D's assistance with premiums and cost sharing more financially sustainable for taxpayers. At the same time, there are other costs to individuals who switch plans—transition issues as they navigate new coverage rules. For example, if a new plan does not cover or requires prior authorization for a medication, some enrollees may have difficulty obtaining the drugs they have been using and could face significant increases in out-of-pocket spending.

Part D drug plans

Beneficiaries can obtain Part D benefits in one of two ways: through a prescription drug plan (PDP), which is “stand alone” in that it offers a drug-only benefit package, or through a benefit within a Medicare Advantage (MA) plan, known as a Medicare Advantage–Prescription Drug (MA–PD) plan, which offers a combined benefit package of medical services and prescription drugs. PDPs are required to be available regionwide within 1 of 34 Medicare-designated PDP regions in the United States. In contrast, MA–PDs are generally local, operating on a countywide basis. Regionwide MA–PDs are an exception; if available, they operate in 1 of 26 Medicare-designated MA regions in the United States. Regionwide MA–PDs are available in 22 of the 26 regions.

Medicare payments to Part D plan sponsors

Medicare’s payments to Part D sponsors are based on plans’ annual estimates of expected benefit costs plus administrative costs including profit. Sponsors’ estimates of expected costs take the form of bids. Medicare pays sponsors a monthly amount per enrollee, adjusted for the health status of the plans’ enrollees. A sponsor’s monthly payment is based on the nationwide average of plan bids for providing basic drug coverage. The nationwide average plays a pivotal role in premiums charged to beneficiaries: Enrollees in a plan whose sponsor bid more than the nationwide average must pay a premium that is higher by the difference between their plan’s bid and the average; those in a plan whose sponsor bid lower than the nationwide average pay a premium that is lower by the difference between their plan’s bid and the average.

Part D includes several financial protections to limit plan sponsors’ exposure to risk. For each Medicare enrollee in a plan (either stand-alone PDP or MA–PD), current law calls for Medicare to provide sponsors with a subsidy that averages 74.5 percent of basic coverage for beneficiaries. That average subsidy takes two forms:

- **Direct subsidy**—a monthly payment to sponsors set as a share of the national average bid, adjusted for the financial risk of the individual enrollee, based on the individual’s health status; and
- **Individual reinsurance**—Medicare subsidizes 80 percent of drug spending above an enrollee’s catastrophic threshold. Reinsurance reduces risk for Part D sponsors by providing greater federal subsidies for the highest cost enrollees.

In addition, Medicare establishes “risk corridors” that define how much risk a sponsor is exposed to, given the dollar level of the plan’s expected costs. Under risk corridors, Medicare limits sponsors’ potential losses or gains by financing some of the higher-than-expected costs or recouping excessive profits. CMS sets risk corridors separately for each plan. The corridors were narrow initially to encourage sponsors to participate in Part D, but they widened in 2008, increasing the amount of insurance risk that sponsors face. The Secretary may further widen the corridors in 2012.

Medicare also pays expected cost sharing and premiums for enrollees who receive the LIS. These program costs are above and beyond the 74.5 percent amount by which Medicare subsidizes basic Part D benefits. According to estimates by the Medicare Trustees, aggregate spending for the LIS has been at nearly the same level as aggregate spending for direct subsidy payments—about \$18 billion each in 2008 (Boards of Trustees 2008).

Sponsors’ monthly payments include the direct subsidies, expected reinsurance, and LIS cost sharing. Although sponsors receive essentially the same direct subsidy per enrollee (modified by risk adjusters), the level of subsidies granted through the other payment mechanisms differs from plan to plan. Subsidy dollars provided through individual reinsurance and LIS cost sharing vary depending on the characteristics of individuals each plan enrolls as well as whether a sponsor’s losses or profits trigger provisions of its risk corridors. (See *MedPAC payment basics: Part D payment system* at http://www.medpac.gov/documents/MedPAC_Payment_Basics_08_PartD.pdf.)

Under Part D’s per enrollee payment arrangement, the accuracy of risk adjustment is key to effective program performance, particularly with respect to LIS enrollees. As long as Medicare’s risk-adjusted payments for LIS enrollees more than cover plans’ benefit costs, sponsors have an incentive to bid low to keep or attract these beneficiaries. But if risk adjusters do not compensate sponsors adequately for LIS enrollees, an incentive may exist for sponsors to bid higher to avoid LIS enrollees—especially if non-LIS enrollees are not sensitive to rising premiums. Findings from Commission-sponsored research on risk adjustment suggest that adding information about enrollees’ past drug utilization could improve the performance of CMS’s current risk adjusters for Part D and for LIS enrollees (see text box). Because a subset of

Risk adjustment under Medicare Part D

Under Part D, Medicare pays organizations that sponsor Medicare Advantage–Prescription Drug (MA–PD) plans and stand-alone prescription drug plans (PDPs) a monthly prospective payment for each enrollee based on plan bids. Because bids represent sponsors’ expected costs of providing a basic benefit for an enrollee of average health, CMS adjusts payments to sponsors to account for enrollees’ demographic characteristics and health status. CMS further adjusts payments for beneficiaries receiving the low-income subsidy (LIS) and for those who are institutionalized to account for their higher expected costs. Accurate risk adjustment is important because it removes any incentive a sponsor may have to attempt to enroll only healthier individuals.

CMS assigns risk scores to each enrollee by using the prescription drug hierarchical condition category (RxHCC) model developed before 2006. It is similar to the hierarchical condition category (HCC) model used for the Medicare Advantage program. Both models use age, gender, disability status, and medical diagnoses from administrative claims data to predict expected costs in the following year.

Both RxHCC and HCC models group thousands of diagnosis codes into disease groups that are similar clinically and in terms of expected costs. For related disease conditions, they rank order the disease groups in hierarchies so that only the highest cost group is included for the purpose of assigning risk scores. Neither model uses information on past drug utilization to predict future costs.

The RxHCC model differs from the HCC model in that it predicts drug spending rather than medical spending. In addition, the RxHCC model uses more diagnoses to create disease categories: about 5,000 compared with about 3,000 for the HCC model. Finally, the RxHCC model classifies diagnoses into disease groups based on drugs used for treatment, so the disease groups do not necessarily overlap with those used for the HCC model.

The payment adjustments for LIS and institutionalized populations are multipliers applied to risk scores assigned by the RxHCC model, and they are intended

to capture factors unique to these populations that lead to higher drug utilization. For example, LIS and institutionalized enrollees pay no or reduced cost sharing. For the LIS, the multipliers are 1.08 and 1.05 for individuals eligible for full and partial subsidies, respectively. For institutionalized status, they are 1.08 and 1.21 for aged and disabled individuals, respectively.⁴

Under a Commission contract, researchers led by John Hsu, M.D., of Kaiser Permanente Northern California, evaluated the performance of the current RxHCC model and the effects of including drug information. The contractor used Part D claims data from selected large sponsors of PDPs, so the data are not representative of the entire Part D program. The analysis focused on PDPs, as LIS recipients make up nearly half of total PDP enrollment, compared with less than 20 percent of total MA–PD enrollment. The objectives of the analysis were to determine:

- how well RxHCC scores predict plan drug benefit spending;
- to what extent including prior-year drug information raises the RxHCC model’s predictive power, and the tradeoffs of doing so; and
- how benefit spending compares for LIS and non-LIS enrollees with similar risk scores.

The analysis was based on Part D claims data for noninstitutionalized individuals enrolled in PDPs in 2006 and 2007. It included only individuals who were enrolled in plans continuously during 2007 to capture a full year of drug utilization. For LIS enrollees, it included only those individuals who received the subsidy for the entire year. The data included more than 1 million individuals, with about one-third receiving the LIS.

Researchers used RxHCC risk scores based on demographic and medical diagnosis information from 2006 data to predict drug spending in 2007. They also introduced two types of variables regarding 2006 drug use: whether an enrollee filled one or more prescriptions for any drug within a given therapeutic

continued next page

Risk adjustment under Medicare Part D (cont.)

class, and the dollar amount of each enrollee's prior-year drug spending. Performance was measured as the amount of variation in actual plan liability (adjusted R-squared) explained by risk adjusters using a linear regression model, the mean absolute dollar amount of prediction error, and how well the model predicted spending for the lowest cost and highest cost enrollees (Hsu 2008).

For the PDPs included in the analysis, RxHCC scores based on CMS's current approach explained slightly less than one-quarter of the total variation in plan benefit spending for LIS and non-LIS enrollees (Table 4-1). Adding information about an individual's drug use in the previous year significantly raised the predictive

power of the risk adjusters. For both LIS and non-LIS enrollees, regression models that included risk scores and past drug use explained slightly more than 40 percent of the variation in actual spending for basic Part D benefits.⁵ When the contractor included each individual's dollar amount of drug spending from the previous year in the model, the regression explained about 50 percent and 60 percent of the variation for the non-LIS and LIS populations, respectively.

CMS's current multipliers compensate plans 5 percent to 8 percent more for the benefit costs of LIS enrollees compared with non-LIS individuals with similar health status. To evaluate those multipliers, the research team compared the actual plan benefit spending of LIS and

**TABLE
4-1**

For a limited sample of PDPs, adding drug information raises the predictive power of Part D adjusters

	Mean absolute prediction error (in dollars)		Percent of variation explained (adjusted R ²)	
	Non-LIS enrollees	LIS enrollees	Non-LIS enrollees	LIS enrollees
RxHCC score	\$520	\$612	0.21	0.24
RxHCC score plus drug class information	403	516	0.42	0.41
RxHCC score plus drug spending	392	451	0.52	0.60

Note: PDP (prescription drug plan), LIS (low-income subsidy), RxHCC (prescription drug hierarchical condition category). Plan benefit spending values are for 2007. Drug class information refers to indicators for whether the enrollee filled a prescription in each of 48 therapeutic classes during 2006. Drug spending reflects an annualized estimate of the dollar value of each enrollee's drug spending. Mean absolute prediction error is the average absolute value of actual plan benefit spending minus what the regression model predicted for plan benefit spending. Adjusted R² is a value between zero and one that describes the amount of variation in actual plan benefit spending explained by the regression model. A value of zero means the model does not explain any of the variation and a value of one means that it explains all the variation.

Source: Hsu 2008.

Part D plans were analyzed, CMS needs to test whether the results apply more generally to all plans.

Part D benefit package

Medicare law sets out a defined standard benefit structure for the program's initial year, but the benefit parameters change over time at the same rate as the annual change in average total drug expenses of Medicare beneficiaries (Table 4-2, p. 282). For 2009, the defined standard benefit

includes a \$295 deductible and 25 percent coinsurance until the enrollee reaches \$2,700 in total covered drug spending, after which a coverage gap exists in which the enrollee is responsible for the full discounted price of covered drugs (usually without reflecting manufacturers' rebates) up to \$4,350 in true out-of-pocket spending (defined as out-of-pocket spending that excludes cost sharing paid by sources of supplemental coverage, such as employer-sponsored policies).⁶ An individual with no

Risk adjustment under Medicare Part D (cont.)

non-LIS enrollees in their sample of plans, controlling for health status as measured by CMS's current RxHCC risk adjusters. They found that the ratios of actual plan benefit spending for LIS enrollees compared with non-LIS enrollees were considerably higher than the amounts suggested by the current multipliers. However, when the researchers added prior-year drug information to RxHCC scores in their regression model, the current multipliers more closely approximated the ratio of benefit spending between LIS and non-LIS enrollees for individuals with similar risk scores.

Overall, the results of the analysis indicate that adding information about the prior year's drug use has the potential to raise the predictive power of the risk adjusters and that the use of this information would have implications for how well LIS multipliers compensate plan sponsors for LIS enrollees. However, this analysis was conducted on a subset of PDPs—CMS should evaluate whether the results apply more generally for all Part D plans.

Decision makers must weigh certain tradeoffs before adding drug information to the Part D risk adjustment methodology. On the positive side, risk adjusters that predicted enrollees' drug spending with more accuracy could mitigate incentives for sponsors to encourage lower cost individuals to enroll and higher cost individuals to disenroll. More accurate risk adjusters could also mitigate incentives for sponsors to put tight restrictions on the use of certain drugs. At the same time, it may not be advisable to remove the cost control and efficiency incentives built into

the concept of prospective payment. If Medicare were to base plan payments on risk-adjusted amounts that too closely predicted actual spending, the result would scarcely differ from using a system of cost-based reimbursement, defeating the purpose behind Medicare's use of prospective payment. Adding information about an enrollee's past drug spending raises the risk adjuster's predictive power but also reduces sponsors' incentives to control drug spending, as higher spending would lead to higher payments the next year. Because of these effects on incentives, policymakers may want to evaluate carefully the tradeoffs of adding information about past drug spending to Part D's risk adjustment model using data from all plans.

Other concerns relate to budgetary implications and timing. Any changes to Part D risk adjustment should be considered in the context of their effects on overall payments to sponsors to ensure that those changes are budget neutral. It takes time to make certain that revised risk adjusters are budget neutral and capture incentives that policymakers think are desirable for the program. CMS is evaluating the RxHCC model and, if the agency chooses to revise it, those changes would be in place for the 2011 benefit year. (CMS would need to have a new risk adjustment system ready in spring 2010 for plan sponsors to prepare and submit bids in June 2010 for the 2011 benefit year.) Given the complexity of the task, it seems unlikely that CMS could revise the RxHCC model to include drug information on a faster timetable. ■

other source of drug coverage reaches the true out-of-pocket limit at about \$6,154 in total drug spending (the combination of the enrollee's spending plus spending the Part D plan covers). Enrollees with drug spending exceeding that amount pay from \$2.40 to \$6.00 per prescription.

Patterns of enrollment in 2008

Enrollment patterns as of January 2008 suggest that the vast majority of Medicare beneficiaries receive some form of drug coverage. However, an estimated one-sixth of financially limited beneficiaries eligible for the LIS were not enrolled to receive the subsidy. In 2008, the two sponsors with the largest concentration of enrollment in PDPs lost market share because premiums for some

**TABLE
4-2****Parameters of the defined standard benefit increase over time**

	2006	2007	2008	2009
Deductible	\$250.00	\$265.00	\$275.00	\$295.00
Initial coverage limit	2,250.00	2,400.00	2,510.00	2,700.00
True out-of-pocket spending limit	3,600.00	3,850.00	4,050.00	4,350.00
Total covered drug spending at true out-of-pocket limit	5,100.00	5,451.25	5,726.25	6,153.75
Minimum cost sharing above true out-of-pocket limit:				
Copay for generic/preferred multisource drug prescription	2.00	2.15	2.25	2.40
Copay for other prescription drugs	5.00	5.35	5.60	6.00

Note: For 2009, most parameters increased by about 7.5 percent, reflecting about a 6 percent trend in per capita spending for Part D benefits as well as about a 1.5 percent increase for prior year revisions.

Source: CMS, Office of the Actuary.

of their plans were too high to qualify as free to LIS enrollees.

Nine in 10 Medicare beneficiaries have Part D or equivalent drug coverage

As of January 2008, about 90 percent of Medicare beneficiaries were either enrolled in Part D plans or had creditable drug coverage—which means they had credit for having prescription drug benefits through non-Medicare sources at least as generous as basic Part D coverage. Specifically, nearly 58 percent of all beneficiaries—more than 25 million individuals—were enrolled in Part D plans: 17 million (40 percent) in PDPs and 8 million (18 percent) in MA-PDs (Figure 4-1). Nearly 7 million other beneficiaries (15 percent) received primary prescription drug coverage through former employers. In return, those employers received a tax-free subsidy from Medicare for some of their drug costs (called the retiree drug subsidy). Combined, Medicare subsidizes the prescription drug spending for 73 percent of beneficiaries.

Another 17 percent of Medicare beneficiaries had other sources of creditable drug coverage that Medicare does not subsidize. About 12 percent of individuals had primary drug coverage through the Federal Employees Health Benefits Program, TRICARE, the Department of Veterans Affairs, Indian Health Service, or current employers (in the case of individuals who are still active workers). About 5 percent had creditable coverage through other sources. That leaves 10 percent (4.6 million beneficiaries) without drug coverage or with coverage of lesser value than Part D.

A sizable minority of eligible beneficiaries did not enroll for Part D's extra help (LIS)

As of January 2008, an estimated 12.5 million Medicare beneficiaries (nearly 30 percent) were eligible for extra help (CMS 2008a). About 9.4 million of those 12.5 million received the subsidy, and another 0.5 million had other sources of creditable coverage. CMS estimates that another 2.6 million Medicare beneficiaries were eligible for extra help but did not sign up. We do not know the degree to which some of those individuals were enrolled in Part D or were among the 10 percent of Medicare beneficiaries without drug coverage.

Among those beneficiaries receiving the subsidy, their enrollment in Part D plans was similar to the enrollment proportions for traditional Medicare and MA plans. Nearly 8 million beneficiaries with Part D's LIS (84 percent) were enrolled in stand-alone PDPs, while about 1.5 million (16 percent) were in MA-PDs.

The percent of LIS enrollees in any given plan can affect how the sponsor manages drug utilization. In aggregate, LIS enrollees make up a much higher percent of enrollment in PDPs (about 45 percent) than in MA-PDs (18 percent).⁷ A key tool that many sponsors use to control drug spending is differential cost sharing—charging different copays for drugs on lower and higher cost-sharing tiers to steer enrollees toward generic and preferred brand-name drugs. Because LIS enrollees face low or no cost sharing, sponsors of Part D plans that have higher proportions of LIS enrollment must use tools other than differential copays to manage benefit spending. Those tools include the design of the plan's formulary (the list

of drugs it may cover) and administrative measures to manage utilization such as prior authorization (preapproval before coverage), quantity limits (on the number of doses covered in a given time period), and step therapy requirements (enrollees must try specified drugs before moving to other drugs).

Largest PDP sponsors lost some market share in 2008

In 2006 and 2007, Part D enrollment in PDPs was concentrated among a relatively small number of sponsors, with the top two (UnitedHealthcare and Humana) accounting for nearly half of PDP enrollment. For 2008, those two firms remained dominant, but their market shares declined because of reassignments of LIS enrollees to lower premium plans. As of October 2008, UnitedHealthcare and Humana held a combined 41 percent of the 17.4 million members in the PDP market (23 percent and 18 percent, respectively), compared with 48 percent the year before (Figure 4-2, p. 284). Universal American, which acquired MemberHealth in 2007, was the third largest PDP sponsor in 2008 with 11 percent of the market.

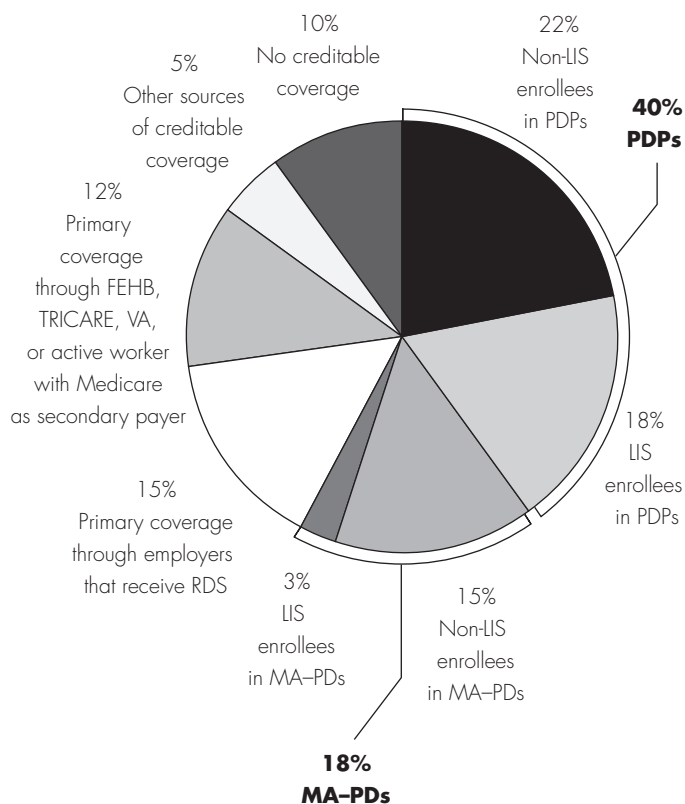
Among organizations that sponsor MA-PDs, market shares changed little in 2008 (Figure 4-3, p. 285). The same two organizations that had the largest PDP membership also had the greatest market shares of enrollment in plans that cover both medical and drug benefits. (The plans with combined medical and drug coverage are predominantly MA-PD plans but also include cost plans, Program of All-Inclusive Care for the Elderly plans, and demonstrations. Our enrollment figures here also include MA-PDs that are open only to employer groups.) In 2008, UnitedHealthcare and Humana account for 17 percent and 15 percent, respectively, of the 8.6 million members in combined coverage plans.

Plan offerings for 2009

Each year, organizations that sponsor Part D plans may change benefit designs, formularies, and cost-sharing requirements. These changes are important to monitor to ensure that Medicare beneficiaries who participate in Part D have reasonable access to appropriate medication therapies. Annual changes in plan bids and enrollee premiums are also important to monitor as indicators of plan performance.

FIGURE 4-1

In 2008, about 90 percent of Medicare beneficiaries were enrolled in Part D plans or had other sources of creditable drug coverage



Note: LIS (low-income subsidy), PDP (prescription drug plan), MA-PD (Medicare Advantage-Prescription Drug [plan]), RDS (retiree drug subsidy), FEHB (Federal Employees Health Benefits program), VA (Department of Veterans Affairs). TRICARE is the health program for military retirees and their dependents. Creditable coverage means drug benefits that are of equal or greater value to the basic Part D benefit. Other sources of creditable coverage include programs such as retiree coverage for employers not enrolled in the RDS, certain medigap policies, and state pharmaceutical assistance programs.

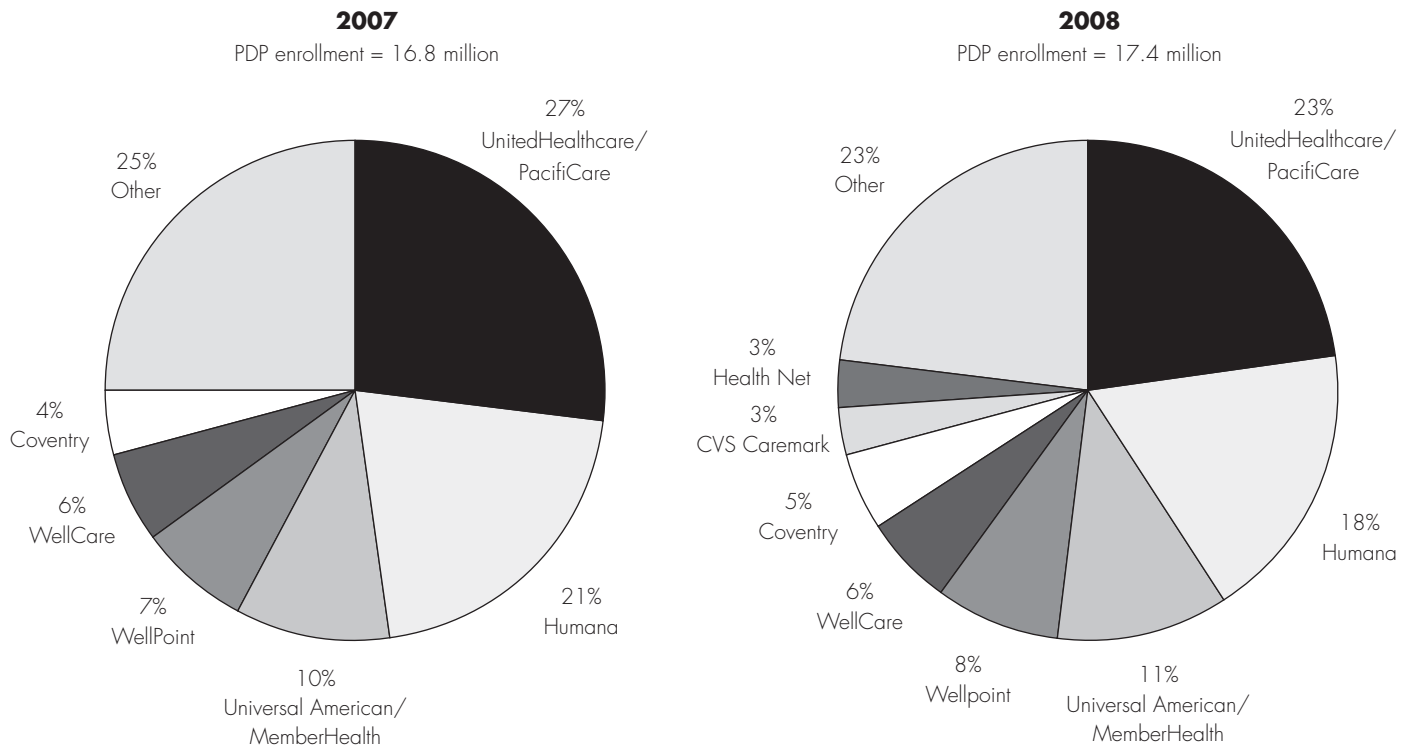
Source: CMS Management Information Integrated Repository data as of January 18, 2008.

Number of stand-alone PDPs remained relatively stable

In 2007 and 2008, the typical Medicare beneficiary had 50 to 60 PDP options to choose from in addition to MA-PD options. Although the total number of PDPs in 2009 declined slightly (7 percent)—1,689 compared with 1,824 in 2008—the median number of plans available in a PDP region is 49. Alaska has the fewest available (45), while the Pennsylvania–West Virginia region has the most (57).

**FIGURE
4-2**

Market shares of the top two PDP sponsors declined somewhat in 2008



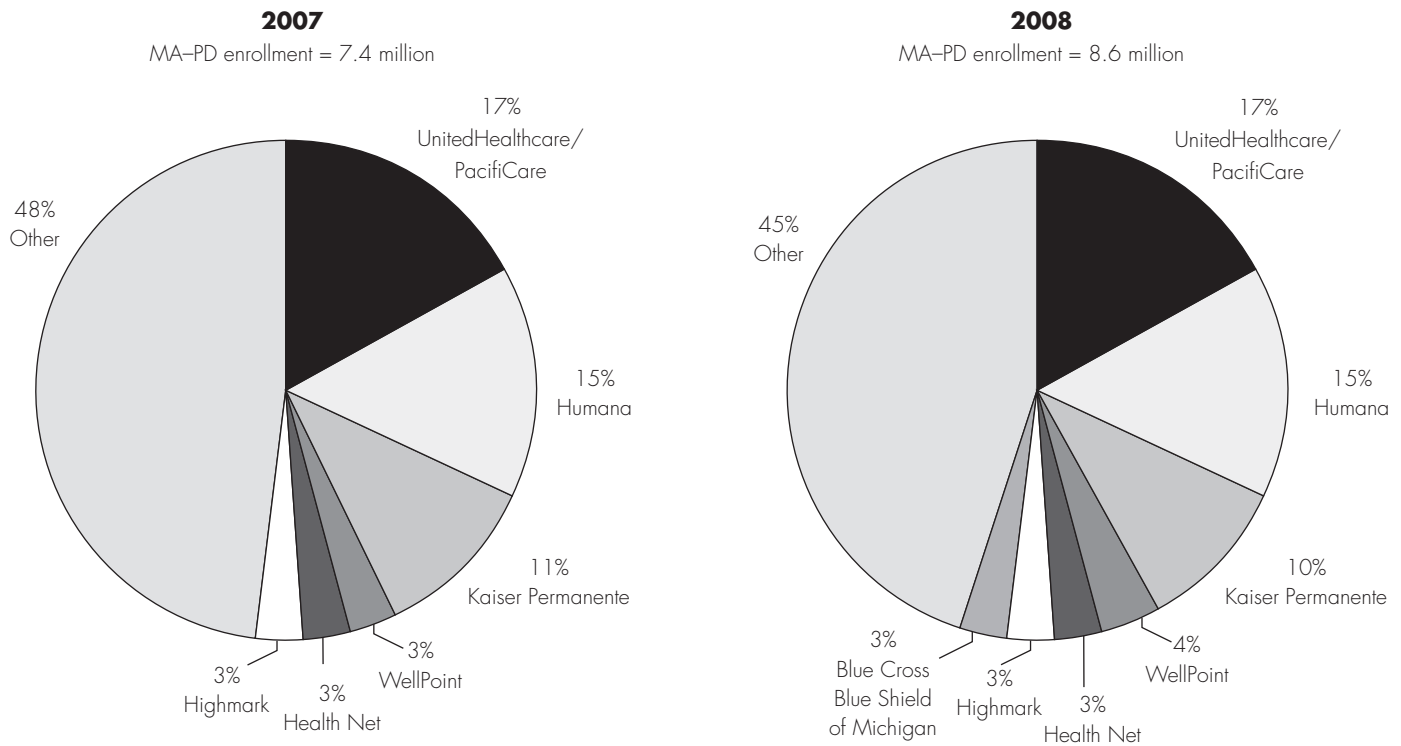
Note: PDP (prescription drug plan). Enrollment numbers for 2007 are as of July and those for 2008 are as of October.

Source: CMS data on monthly enrollment by plan for 2007 and 2008. <http://www.cms.hhs.gov/MCRAAdvPartDENrolData/EP/list.asp#TopOfPage>.

Table 4-3 (p. 286) shows plan type, benefit, deductible, gap drug coverage, and enrollment characteristics for PDPs in 2008 and 2009.

The decline in the number of PDPs reflects organizational mergers and acquisitions as well as withdrawals of certain benefit designs. For example, UnitedHealthcare and PacifiCare merged in 2006; under CMS guidance, the organization was required to reduce its combined number of plans per region over a three-year period. In addition, several organizations—including Sterling, Longs Drug Stores (RxAmerica), and Coventry (First Health)—withdrew PDPs from the market that covered generic drugs for beneficiaries whose spending had reached the coverage gap. In 2008, 16 organizations that offered one or more PDPs in each of the 34 PDP regions continued to account for 86 percent of PDP enrollment. At least one organization, BravoHealth, greatly expanded its PDP offerings for 2009—operating nearly nationwide with PDPs in 32 regions.

In general, the distribution of PDP benefit designs did not change much between 2008 and 2009, except for the smaller number of plans providing benefits for beneficiaries whose spending reached the coverage gap. Plan sponsors continue to offer more actuarially equivalent benefits or enhanced benefits than the defined standard benefit package. Actuarially equivalent plans have the same average benefit value as defined standard plans but a different benefit structure. For example, a plan may use tiered copays rather than 25 percent coinsurance. Or a plan may have no deductible but use cost-sharing requirements that are equivalent to a rate higher than 25 percent. Both defined standard benefit plans and plans that are actuarially equivalent are known as “basic benefits.” Once a sponsor offers at least one PDP with basic benefits in a PDP region, it may also offer a plan with “enhanced benefits”—basic and supplemental benefits combined, with a higher average benefit value. Medicare does not subsidize these supplemental benefits; enrollees in

**FIGURE
4-3****Market shares among MA-PD sponsors remained stable in 2008**

Note: MA-PD (Medicare Advantage-Prescription Drug [plan]). Enrollment numbers for 2007 are as of July and those for 2008 are as of October. Includes Medicare Advantage, employer-only, cost, Program of All-inclusive Care for the Elderly, and demonstration plans that offer Part D coverage.

Source: CMS data on monthly enrollment by plan for 2007 and 2008. <http://www.cms.hhs.gov/MCRAAdvPartDEnrolData/EP/list.asp#TopOfPage>.

enhanced plans must pay the full value of that coverage as part of their premium.

In 2008, 61 percent of PDP enrollees had basic coverage that was actuarially equivalent to the defined standard benefit, nearly all with tiered copays rather than coinsurance. One reason for the wide prevalence of such plans is that tiered copays are an effective tool sponsors use to steer enrollees toward generic and preferred brand-name drugs for which the sponsor receives manufacturer rebates. Some enrollees may prefer copays to coinsurance because of their predictability. Another 23 percent of PDP enrollees had enhanced benefits. Typically, PDPs enhance coverage by charging no deductible rather than by providing benefits in the coverage gap.⁸ (Sponsors can enhance benefits in other ways as well—e.g., covering drugs not allowed under basic Part D benefits such as weight-loss medications and over-the-counter products.) In 2008, more than half of PDP enrollees paid no deductible (51 percent) or a lower deductible than that in Part D's

defined standard benefit (4 percent). Only 7 percent of PDP enrollees were in plans that offered gap coverage, usually for generic rather than brand-name drugs. However, 45 percent of PDP enrollees received Part D's LIS, which effectively eliminates their coverage gap.

For 2009, plan sponsors have generally kept benefit designs similar to those for 2008. A slightly smaller share of PDPs have the defined standard benefit structure (10 percent in 2009 compared with 12 percent in 2008), and 53 percent of PDPs are enhanced plans with a higher average benefit value, compared with 51 percent in 2008. A smaller proportion of PDPs have no deductible for 2009, but many PDPs charge a lower deductible than the defined standard benefit amount of \$295.

The most noticeable change among benefits for 2009 is that a smaller share of PDPs provides gap coverage. In 2008, about 29 percent of plans included some gap coverage—usually some or all generic drugs but no brand-

**TABLE
4-3**

Characteristics of PDPs

	2008				2009		
	Plans		Enrollees (as of October 2008)		Plans		Percent of estimated enrollment ^a
	Number	Percent	Number (in millions)	Percent	Number	Percent	
Total	1,824	100%	16.5	100%	1,689	100%	100%
Type of organization							
National ^b	1,589	87	14.2	86	1,496	89	88
Near-national ^c	0	0	0.0	0	32	2	1
Other	235	13	2.3	14	161	9	11
Type of benefit							
Defined standard	217	12	2.7	17	170	10	7
Actuarially equivalent ^d	682	37	10.0	61	628	37	66
Enhanced	925	51	3.7	23	891	53	27
Type of deductible							
Zero	1,065	58	8.4	51	934	55	49
Reduced	150	8	0.7	4	189	11	6
Defined standard ^e	609	33	7.4	45	566	34	46
Drugs covered in the gap							
Some generics but no brand-name drugs	528	29	1.2	7	413	24	7
Some generics and some brand-name drugs	1	<0.5	<0.5	<0.5	3	<0.5	0
None	1,295	71	15.3	93	1,273	75	93

Note: PDP (prescription drug plan). The PDPs and enrollment described here exclude employer-only plans and plans offered in U.S. territories. Sums may not add to totals due to rounding.

a. Assumes enrollees remained in the same plan in which they were enrolled in 2008 if offered in 2009. Nearly 98 percent of October 2008 PDP enrollees who were within the scope of our analysis were in 2008 plans that could be matched to 2009 plans. Some beneficiaries enrolled in or were reassigned to a different plan for 2009.

b. Reflects total numbers of plans for the 16 organizations with at least 1 PDP in all 34 PDP regions.

c. Totals for organizations offering 30 or more PDPs across the country, but without 1 in each PDP region.

d. Includes "actuarially equivalent standard" and "basic alternative" benefits.

e. \$275 in 2008 and \$295 in 2009.

Source: MedPAC analysis of CMS landscape, bid, and enrollment data.

name medications. For 2009, that share fell to 24 percent. While relatively few PDP enrollees are in enhanced plans with gap coverage, some of those individuals had to switch plans because the plan's sponsor withdrew them from the market—presumably because those plans were costlier and less profitable to the sponsor than expected.

More MA-PDs offer enhanced benefits than PDPs

As in 2008, sponsors offered a larger number of MA-PDs in 2009 than the year before: 2,039 plans for 2009 compared with 1,932, or 6 percent more (Table 4-4). (Our analysis here excludes employer-only plans, cost plans, Program of All-Inclusive Care for the Elderly plans, demonstrations, and plans for beneficiaries who do not

**TABLE
4-4**

Characteristics of MA-PDs

	2008				2009		
	Plans		Enrollees (as of October 2008)		Plans		Percent of estimated enrollment ^a
	Number	Percent	Number (in millions)	Percent	Number	Percent	
Total	1,932	100%	5.7	100%	2,039	100%	100%
Type of organization							
Local HMO	1,025	53	4.1	72	1,126	55	73
Local PPO	353	18	0.5	8	430	21	8
PFFS	520	27	0.9	17	449	22	16
Regional PPO	34	2	0.2	4	33	2	3
Type of benefit							
Defined standard	79	4	<0.1	1	92	5	1
Actuarially equivalent ^b	132	7	0.3	6	161	8	4
Enhanced	1,721	89	5.3	93	1,786	88	95
Type of deductible							
Zero	1,665	86	5.3	94	1,797	88	94
Reduced	45	2	0.1	2	104	5	3
Defined standard ^c	222	11	0.2	4	138	7	3
Drugs covered in the gap							
Some generics but no brand-name drugs	661	34	2.2	38	701	34	40
Some generics and some brand-name drugs	327	17	1.4	25	355	17	27
None	944	49	2.1	37	983	48	33

Note: MA-PD (Medicare Advantage–Prescription Drug [plan]), PPO (preferred provider organization), PFFS (private fee-for-service). The MA-PDs and enrollment described here exclude employer-only plans, plans offered in U.S. territories, 1876 cost plans, special needs plans, demonstrations, and Part B-only plans. Sums may not add to totals due to rounding.

a. Assumes enrollees remained in the same plan in which they were enrolled in 2008 if offered in 2009. About 97 percent of October 2008 MA-PD enrollees who were within the scope of our analysis were in 2008 plans that could be matched to 2009 plans. New plan entrants are credited with no enrollment. Note that some beneficiaries enrolled in a different plan for 2009.

b. Includes “actuarially equivalent standard” and “basic alternative” benefits.

c. \$275 in 2008 and \$295 in 2009.

Source: MedPAC analysis of CMS landscape, bid, and enrollment data.

have Part A coverage. A separate section below describes special needs plans (SNPs).)

Offerings through MA-PDs differ systematically from PDPs. The law allows MA-PDs to use 75 percent of the difference between an MA plan’s benchmark payment and its bid for providing Part A and Part B services (called Part C rebate dollars) to supplement its package of benefits or lower its premium. Many MA-PDs use some of their

rebate dollars to enhance their Part D benefit or to reduce the portion of their plan premium associated with drug coverage.

The dominant type of MA-PD organization is the HMO, making up more than half of all MA-PDs. Last year, a sizable growth occurred in the share of MA-PDs that were private fee-for-service (PFFS) plans. Between 2008 and 2009, PFFS MA-PDs noticeably declined, in both number

(from 520 to 449) and percent (from 27 percent to 22 percent). In their place, sponsors offered more HMOs and local preferred provider organizations.

MA-PDs continue to be more likely than PDPs to include enhanced drug benefits. In 2009, 88 percent of MA-PDs include enhanced benefits, compared with 53 percent of PDPs (Table 4-3, p. 286). As with PDPs, MA-PDs enhance (supplement) benefits mostly by eliminating or lowering the deductible. Compared with PDPs, however, a larger proportion of MA-PDs provide coverage of some or all generic drugs in Part D's coverage gap—52 percent in 2009 compared with about 25 percent of PDPs. About 17 percent of MA-PDs cover some (often preferred) brand-name drugs as well as generics, while 34 percent provide gap coverage for generic drugs only.

In 2009, SNPs increasingly offer the defined standard benefit as compared with other benefit types

In 2008, more than a million beneficiaries were enrolled in SNPs. The Congress created SNPs to provide a common framework for existing plans (including demonstrations) for special needs beneficiaries and to expand beneficiaries' access to and choice among MA plans. SNPs generally function like and are paid the same as other MA plans. In addition, they must provide Part D benefits.⁹ Unlike other MA plans, SNPs can target certain types of enrollees—beneficiaries dually eligible for Medicare and Medicaid (dual eligibles), institutionalized beneficiaries, and beneficiaries with severe or disabling chronic conditions. In practice, however, some individuals other than those categories of beneficiaries also enroll in SNPs. In 2008, the Congress placed a moratorium on new SNPs but also extended the authority of SNPs to target enrollment to certain populations (with new restrictions) until December 31, 2010.

Just under 60 percent of SNPs serve dual eligibles, and these beneficiaries make up 66 percent of SNP enrollees (Table 4-5). Chronic condition SNPs are the next most common type, making up about 30 percent of plans and 21 percent of total SNP enrollment. The vast majority of SNPs are HMOs; PFFS plans are ineligible to operate as SNPs.

The distribution of SNP drug benefit designs changed significantly in 2009. Sponsors are offering fewer actuarially equivalent benefits: 67 SNPs, or 10 percent of all SNPs, down from 162 SNPs in 2008, or 23 percent. Sponsors offset this decline with defined standard benefit plans (230 SNPs, or 35 percent, in 2009 compared with

188, or 27 percent, in 2008). Similarly, the numbers and shares of zero- and reduced-deductible SNPs declined, while the proportion of SNPs that use the deductible from the defined standard benefit (\$295 in 2009) grew significantly. Also, fewer SNPs cover some drugs for beneficiaries whose spending reaches Part D's coverage gap: 24 percent compared with 31 percent in 2008. These changes may not affect many enrollees in SNPs for dual eligibles and institutionalized beneficiaries, as most of these individuals face low or no copays and no gap in coverage. However, not all enrollees in SNPs for dual eligibles or for the institutionalized receive the LIS, and enrollees in chronic condition SNPs are affected as well.¹⁰

Enrollee premiums increased for 2009

If they remained in the same plan as last year, Part D enrollees pay an average of nearly \$31 per month in 2009, up \$6 (24 percent) from nearly \$25 per month (Table 4-6, p. 290). The average PDP enrollee pays about \$37 per month compared with \$30 in 2008, a 25 percent increase. Similarly, the portion of MA premiums attributable to prescription drug benefits increased in 2009, with the average MA-PD enrollee (excluding SNPs) paying about \$15 per month, compared with \$12 in 2008—a 27 percent increase. (These amounts reflect MA-PDs' rebate dollars, which come from the MA payment system. Many MA plan sponsors apply rebate dollars from the MA payment system to lower or eliminate their premium for Part D benefits. In 2009, about two-thirds of MA-PDs charged no premium for drug coverage.)

The estimates above overstate the average premium increase that Part D enrollees experienced for 2009 because, at the time of publication, we did not know how many beneficiaries would change plans. Subsequently, CMS reassigned some LIS enrollees to lower premium plans, and other individuals changed to new plans on their own in response to rising premiums. These factors tend to dampen the average percentage increase.

According to CMS, the average portion of an MA-PD premium attributable to Part D benefits (before applying rebate dollars from the MA payment system) in 2009 is \$11 less than the average PDP premium (CMS 2008b). Because bids for both PDPs and MA-PDs make up the overall national average bid and affect Medicare's payments to sponsors, lower average bids by MA-PDs somewhat reduce federal program spending for Part D.

A counterintuitive finding is that, at \$22.12 per month, the average portion of MA-PD premiums attributable to Part

**TABLE
4-5**

Characteristics of SNPs and their drug coverage

	2008				2009		
	Plans		Enrollees (as of October 2008)		Plans		Percent of estimated enrollment ^a
	Number	Percent	Number (in millions)	Percent	Number	Percent	
Total	704	100%	1.1	100%	658	100%	100%
Type of SNP							
Dual eligible	401	57	0.7	66	383	58	66
Chronic condition	221	31	0.2	22	195	30	21
Institutionalized	82	12	0.1	12	80	12	12
Type of MA organization							
Local HMO	587	84	0.9	84	555	84	84
Local PPO	76	11	0.1	9	72	11	9
Regional PPO	41	6	0.1	8	31	5	8
Type of benefit							
Defined standard	188	27	0.3	28	230	35	40
Actuarially equivalent ^b	162	23	0.3	26	67	10	14
Enhanced	354	50	0.5	46	361	55	46
Type of deductible							
Zero	358	51	0.6	57	277	42	44
Reduced	69	10	<0.05	5	22	3	1
Defined standard ^c	277	39	0.4	38	359	55	55
Drugs covered in the gap							
Some generics but no brand-name drugs	117	16	0.2	21	39	6	13
Some generics and some brand-name drugs	99	15	0.1	8	119	18	9
None	488	69	0.7	71	500	76	78

Note: SNPs (special needs plans), MA (Medicare Advantage), PPO (preferred provider organization). SNPs are MA plans that are permitted to limit their enrollment to a targeted population such as beneficiaries with a specific chronic condition, dual eligibles, or the institutionalized. The SNPs and enrollment described here exclude employer-only plans and plans offered in U.S. territories. Private fee-for-service plans are not permitted to offer SNPs. Sums may not add to totals due to rounding.

a. Assumes enrollees remained in the same plan in which they were enrolled in 2008 if offered in 2009. About 99 percent of October 2008 SNP enrollees who were within the scope of our analysis were in 2008 plans that could be matched to 2009 plans. New plan entrants are credited with no enrollment. Note that some beneficiaries enrolled in a different plan for 2009.

b. Includes "actuarially equivalent standard" and "basic alternative" benefits.

c. \$275 in 2008 and \$295 in 2009.

Source: MedPAC analysis of CMS landscape, bid, and enrollment data.

D coverage is higher for plans with basic benefits than the average for plans with enhanced benefits (\$14.78 per month). A predominant share of plans contributing to the overall MA-PD average of \$15.15 is made up of MA-PDs that offer enhanced rather than basic benefits (90 percent).

In most cases, organizations that sponsor MA-PDs do not offer basic and enhanced plans in the same area of operations. The average premiums for MA-PDs offering basic compared with enhanced benefits reflect a mixture of different plan sponsors and different MA payment rates.

**TABLE
4-6**

Comparison of Part D premiums in 2008 and 2009

	2008 enrollment (in millions)	Premium ^a		Change in premium	
		2008	2009	Dollar	Percent
PDPs					
Basic plans	12.8	\$26.72	\$32.98	\$6.27	23%
Enhanced plans	3.7	40.65	48.42	7.77	19
All PDPs	16.5	29.86	37.27	7.41	25 ^b
MA-PDs, excluding SNPs^c					
Basic plans	0.4	21.88	22.12	0.24	1
Enhanced plans	5.3	11.23	14.78	3.55	32
All MA-PDs	5.7	11.97	15.15	3.18	27
SNPs^c					
Basic plans	0.6	20.30	21.44	1.14	6
Enhanced plans	0.5	11.68	11.81	0.12	1
All SNPs	1.1	16.30	16.97	0.67	4
All plans					
Basic plans	13.7	26.31	32.21	5.90	22
Enhanced plans	9.5	22.73	29.26	6.53	29
All plans	23.3	24.85	30.88	6.03	24

Note: PDP (prescription drug plan), MA-PD (Medicare Advantage-Prescription Drug [plan]), SNP (special needs plan). The PDPs and enrollment described here exclude employer-only plans and plans offered in U.S. territories. The MA-PDs and SNPs and their enrollment described here exclude employer-only plans, plans offered in U.S. territories, 1876 cost plans, demonstrations, and Part B-only plans.

a. Values for plans offered in 2008 are the weighted average using October 2008 enrollment. Values for plans offered in 2009 are estimated and reflect enrollment levels of those plans as of October 2008. New plan entrants have no enrollment. Ninety-eight percent of October 2008 PDP enrollees, 97 percent of MA-PD enrollees, and 99 percent of SNP enrollees who were within the scope of our analysis were in 2008 plans that could be matched to 2009 plans. Note that some beneficiaries enrolled in a different plan or, in the case of some low-income subsidy enrollees, were reassigned automatically to a lower premium plan for 2009.

b. A 25 percent increase is counterintuitive because it is larger than the 23 percent and 19 percent increases for average basic and enhanced PDP premiums, respectively. However, the average PDP premium for 2009 reflects a higher proportion of enrollment in higher premium enhanced PDPs rather than basic PDPs because more enhanced plans could be matched with 2008 enrollment data.

c. Reflects the portion of Medicare Advantage plans' total monthly premium attributable to Part D benefits for plans that offer Part D coverage. MA-PD premiums reflect rebate dollars (75 percent of the difference between a plan's payment benchmark and its bid for providing Part A and Part B services) that were used to offset Part D premium costs.

Source: MedPAC analysis of CMS landscape, bid, and enrollment data.

In 2009, CMS ended its demonstration that phased in the use of enrollment as a factor in calculating the Part D national average bid. Medicare law calls for weighting plan bids by their prior-year enrollment (called enrollment weighting). The national average bid is the amount CMS uses to set Part D enrollee premiums as well as Medicare's payments to sponsors. When setting premiums and payments for 2006, CMS weighted PDP bids equally because Part D was a new program without prior-year enrollment. For 2007 and 2008, CMS used its general demonstration authority to transition to enrollment weighting. This change led to a higher Medicare subsidy than the 74.5 percent called for by law, which increased

the government's payments to sponsors and lowered enrollee premiums relative to the statutory requirement. This year (2009) is the first in which CMS used full enrollment weighting to set premiums and payments.

Low-income premium subsidies and beneficiary reassignments

In 2009, LIS enrollees have far fewer options of PDPs in which they pay no premium. A total of 308 PDPs have premiums at or below the LIS monthly premium subsidy amount for their region, compared with 495 PDPs in 2008 (Table 4-7). Unlike past years when each region had at least five PDPs available to LIS enrollees at no premium, in

**TABLE
4-7**

Fewer PDPs with no premium are available to LIS enrollees in 2009

PDP region	State(s)	LIS monthly premium subsidy			Number of qualifying PDPs		
		2008	2009	Difference	2008	2009	Difference
1	ME, NH	\$31	\$28	-\$3	18	5	-13
2	CT, MA, RI, VT	29	32	3	14	12	-2
3	NY	24	28	4	15	9	-6
4	NJ	31	31	<-0.50	18	7	-11
5	DE, DC, MD	31	31	<0.50	18	11	-7
6	PA, WV	27	29	3	18	9	-9
7	VA	31	32	1	17	13	-4
8	NC	33	33	<0.50	17	11	-6
9	SC	31	32	1	20	15	-5
10	GA	30	29	-1	18	11	-7
11	FL	19	21	2	8	5	-3
12	AL, TN	28	30	2	15	12	-3
13	MI	30	32	2	17	11	-6
14	OH	27	28	2	15	6	-9
15	IN, KY	34	34	<0.50	17	12	-5
16	WI	31	38	7	16	16	0
17	IL	30	30	<-0.50	19	12	-7
18	MO	27	32	5	13	6	-7
19	AR	28	27	-1	18	12	-6
20	MS	31	32	<0.50	15	13	-2
21	LA	25	27	3	10	7	-3
22	TX	25	25	<0.50	15	14	-1
23	OK	28	29	1	13	8	-5
24	KS	31	34	3	17	10	-7
25	IA, MN, MT, NE, ND, SD, WY	31	33	3	16	9	-7
26	NM	19	21	1	11	7	-4
27	CO	25	30	6	12	8	-4
28	AZ	16	16	<0.50	7	2	-5
29	NV	17	20	4	5	1	-4
30	OR, WA	30	32	2	15	7	-8
31	ID, UT	34	37	4	14	9	-5
32	CA	20	25	5	9	6	-3
33	HI	24	25	1	10	5	-5
34	AK	36	36	<-0.50	15	7	-8
	Total	N/A	N/A	N/A	495	308	-187

Note: PDP (prescription drug plan), LIS (low-income subsidy), N/A (not applicable).

Source: MedPAC based on 2009 PDP landscape file and LIS enrollment data provided by CMS.

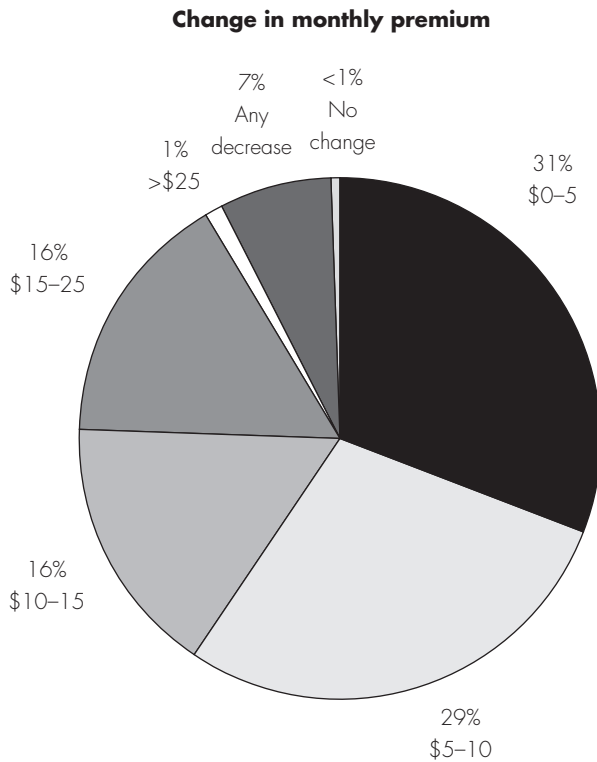
2009, two regions will have fewer than three (Nevada with one, and Arizona with two such PDPs), and every region but Wisconsin had a decline in the number of such PDPs.

Approximately 2.3 million LIS enrollees were affected by this 2009 turnover of qualifying plans. CMS expected

to reassign an estimated 0.5 million beneficiaries to a qualifying plan offered by the same sponsor. Because many sponsors use the same formulary for all their plans, these reassigned individuals are less likely to face significant changes. Another 0.6 million LIS enrollees, who previously chose a plan on their own, were

FIGURE 4-4

Almost all PDP enrollees who do not receive the low-income subsidy pay higher premiums in 2009 if they stayed in the same plan



Note: PDP (prescription drug plan).

Source: MedPAC analysis of CMS landscape, bid, and enrollment data.

responsible for switching themselves into a qualifying plan or for paying a portion of the premium to remain in the same plan. CMS expected to reassign an estimated 1.2 million individuals (12 percent of LIS enrollees) to new plans offered by a different plan sponsor (CMS 2008g). By comparison, in 2008, a similar number of LIS enrollees (2.6 million) were affected by the turnover of qualifying plans. Compared with 2009, in 2008 more enrollees (1 million) were reassigned to plans offered by the same sponsor, while similar numbers switched themselves into a qualifying plan, paid part of the premium to stay in the same plan (0.4 million), or were reassigned to a new plan with a different sponsor (1.2 million).

Beneficiaries who switch plans and the physicians and pharmacies who serve them face transition issues as they change formularies. For example, the enrollee may need to negotiate transition supplies of drugs and try to navigate

different coverage rules. (Under CMS policy, during the first 90 days of a beneficiary's enrollment, sponsors are required to provide a 30-day supply of the enrollee's current medication, even if it is not covered on the plan's formulary, to give the enrollee time to obtain a substitute drug or request a formulary exception.) Enrollment and LIS eligibility information is transmitted through less than up-to-date data systems that must connect sponsors, states, CMS, the Social Security Administration, and pharmacies. At the point of service, pharmacists must know the beneficiary's plan and applicable copay. If these data links are not current, the beneficiary is not recognized as an enrollee or is charged a higher copay. A potential outcome is that enrollees may discontinue needed medication.

We do not yet know how reassigned beneficiaries have fared in past years. Despite a relatively large number of reassignments in 2008, there was little press coverage of problems for LIS enrollees at the start of the year. Future analyses of Part D claims information will enable us to see whether plan reassignments have led LIS enrollees to change their adherence to medication therapies, or whether there are noticeable effects on health outcomes and use of other services.

For 2009, CMS moved to a new method for setting LIS premium thresholds. Specifically, the agency set each region's threshold amount by weighting plan premiums by the number of their LIS enrollees. Previously, CMS was phasing in the weighted enrollment approach, which weighted premiums by overall plan enrollment and not just LIS enrollment. (The agency used its general demonstration authority to phase in weighting over time rather than moving to full enrollment weighting in 2007 as called for by law. Under the same demonstration, CMS carried out a "de minimis" policy: Plans with premiums within \$1 or \$2 of their regional threshold remained premium-free to LIS enrollees, but those plans were ineligible to receive newly assigned enrollees. CMS discontinued the demonstration for 2009.) A reason for the change was concern that in areas where MA-PDs hold large shares of enrollment, the ability of MA-PDs to reduce their drug premiums with rebate dollars (from the MA payment system) would lead to lower regional thresholds and therefore fewer PDPs with premiums below those thresholds. Because, on average, MA-PDs have fewer LIS enrollees than PDPs and PDPs tend to have higher premiums, weighting premiums by LIS enrollment would tend to raise regional thresholds.

The agency believes the new policy helped reduce the number of beneficiaries who had to be reassigned for 2009 relative to what would have happened under the previous method. Yet, even with the new method, LIS premium subsidy thresholds remain low in some parts of the country because in those areas relatively high shares of LIS beneficiaries are enrolled in MA–PDs.

Some LIS enrollees choose to remain in their current plan rather than be reassigned to a new one. To stay in their current plan, LIS enrollees need to pay the difference between their plan’s premium and the threshold amount that Medicare covers in their region. The premium amount such individuals need to pay differs across plans, ranging between 6 cents and more than \$47 per month. The most common amounts are between \$3 and \$5 per month.

Some enrollees who do not receive the LIS also live on fixed or limited incomes, and they too may find that they need to switch plans because of premium increases. We estimate that about 93 percent of non-LIS enrollees in PDPs faced a premium increase for 2009 (Figure 4-4). For about 7 percent of individuals, their plan’s monthly premium decreased or stayed the same. Most individuals—about 60 percent—saw their PDP premium increase by less than \$10 per month. However, about one-third of non-LIS enrollees were enrolled in PDPs with premiums that increased by \$10 or more per month.

Plan formularies and cost-sharing requirements

The Medicare drug benefit requires plan sponsors to operate their own formularies—a list of drugs that plans may cover and the terms under which they will cover them—to manage the cost and use of prescription drugs.¹¹

When designing formulary systems, sponsors strike a balance between providing enrollees with access to medications and controlling growth in drug spending by negotiating drug prices and managing utilization. Part D sponsors rely on clinicians—generally physicians and pharmacists who participate on a pharmacy and therapeutics committee—when deciding specific drugs to list on their formularies. Plan sponsors must also select the cost-sharing tier for each listed drug and whether any utilization management tools apply to the drug, taking into account clinical and financial factors (e.g., how decisions might affect the sponsors’ rebates from drug manufacturers). Making all medications readily accessible at preferred levels of cost sharing can lead to Part D premiums that are high relative to a sponsor’s competitors,

whereas an overly restrictive formulary may keep a plan’s premium competitive but may be less attractive because it covers a limited number of drugs.

Each spring, Part D sponsors submit data to CMS on the list of drugs their plans may cover, cost-sharing tiers for the drugs, and whether each drug is subject to utilization management tools such as prior authorization.¹² CMS then uses that information, along with data from sponsors about formulary changes, to create files on a monthly basis that describe plan formularies. Researchers at NORC at the University of Chicago, Georgetown University, and Social and Scientific Systems—under contract with the Commission—used these formulary files to analyze Part D formulary structures and cost-sharing requirements. They found a large degree of variation across plan sponsors, but, in general, they also saw trends toward increasing the use of preferred, nonpreferred, and specialty tiers in formulary designs for 2009 and higher levels of cost sharing.

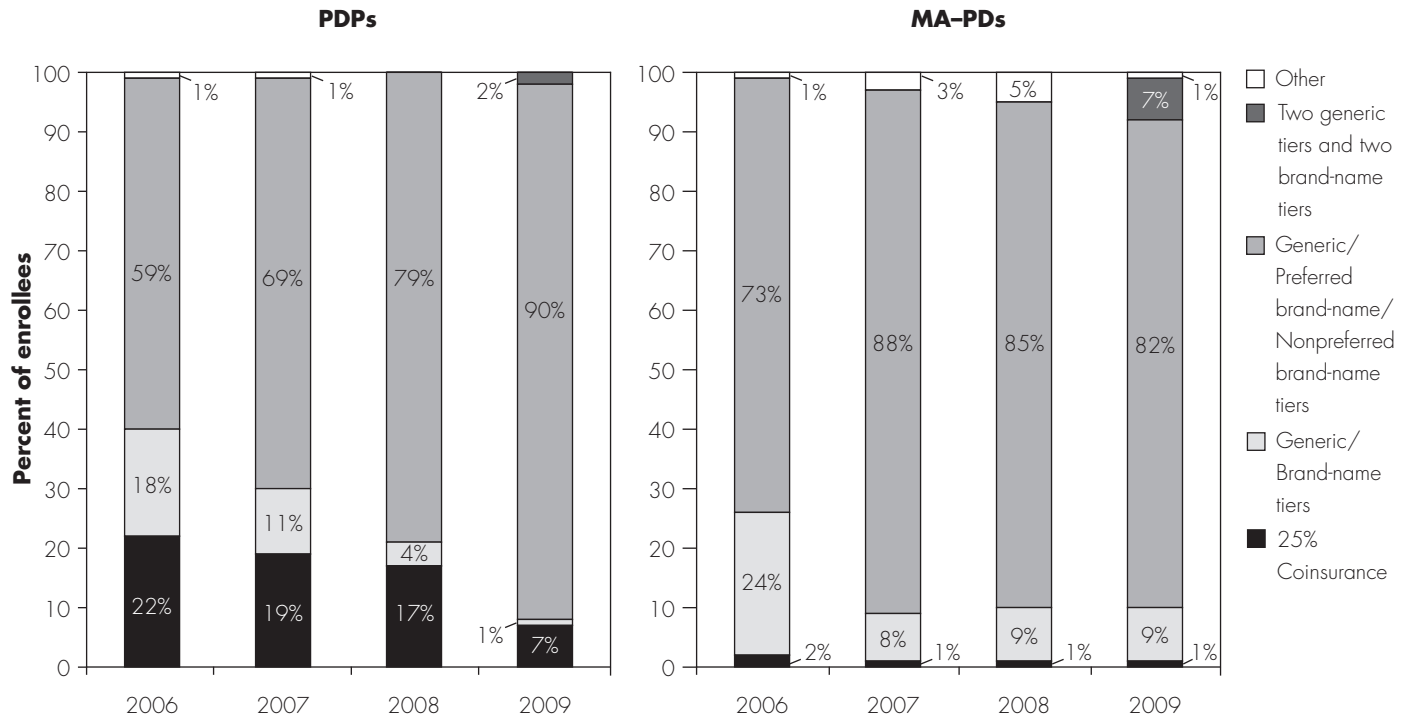
To conduct this analysis, researchers had to decide how to define a drug, as medication therapies come in a variety of forms and dosages. How drugs are defined can have a significant impact on formulary rules and standards. CMS generally requires that plan formularies include at least two drugs in each of its therapeutic categories and classes, unless only one drug is available. Yet, two products may be considered the same drug by one measure, while they are treated as separate entities by another. After considering several analytic approaches, our contractor conducted the research for this chapter by defining drugs at the level of chemical entities—a broader grouping that encompasses all of a chemical’s forms, strengths, and package sizes. The definition combines brand-name and generic versions of the same chemical entity.¹³ (For more on the implications of how one defines a drug, see the Commission’s March 2008 report (MedPAC 2008).)

Plan tier structures and cost-sharing requirements

CMS data show that most plans’ formularies fall into three categories: 1) 25 percent cost sharing for all listed drugs (as in the defined standard benefit), 2) one generic and one brand-name tier, and 3) designs that include a generic tier and also distinguish between preferred and nonpreferred brand-name drugs.¹⁴ Among these categories, most plans use the third category. In addition, CMS permits Part D plans to use a specialty tier for expensive products, unique drugs, and biologics; most plan formularies include a specialty tier.

**FIGURE
4-5**

Part D plans increasingly use formularies with tiers for generic, preferred brand-name, and nonpreferred brand-name drugs



Note: PDP (prescription drug plan), MA-PD (Medicare Advantage-Prescription Drug [plan]). Calculations are weighted by enrollment. 2009 values were calculated using 2008 enrollment. PDPs exclude employer-only groups and plans offered in U.S. territories. MA-PDs exclude demonstration programs, 1876 cost plans, employer-only groups, special needs plans, and plans offered in U.S. territories. Most plans, except benefits that use the standard 25 percent coinsurance for all drugs, also have a specialty tier for higher price drugs.

Source: NORC/Georgetown University/Social and Scientific Systems analysis for MedPAC of formularies submitted to CMS.

By setting differential copays between preferred and nonpreferred brands, these formularies may give sponsors a stronger tool than two tiers for encouraging substitution among drugs within the same therapeutic class. Use of these designs in Part D has increased: The share of beneficiaries enrolled in a plan with a formulary using separate tiers for preferred and nonpreferred brands grew from 59 percent of PDP enrollees in 2006 to an estimated 90 percent in 2009, and from 73 percent of MA-PD enrollees in 2006 to an estimated 82 percent in 2009 (Figure 4-5).¹⁵

New for 2009, a noticeable number of sponsors introduced two tiers for generic drugs on their plans' formularies—with one often labeled as preferred or “value” generics—along with having two brand-name tiers (for preferred and nonpreferred brands). Using enrollment data from 2008, we estimate that about 2 percent of PDP enrollees and 7 percent of MA-PD enrollees are in plans with two generic

tiers. Presumably, these formularies are in response to pharmacy chains and big-box stores such as Wal-Mart that offer low-cost generics (e.g., \$4 for a 30-day supply) to all their customers. Another reason may be that some new generic drugs are much more expensive than older generics, and sponsors may want to place them on the generic tier that has a higher copay.

Most plans with benefit designs that differ from the defined standard benefit (which has flat 25 percent coinsurance for all listed drugs) include a specialty tier in their formulary design. In 2006, 82 percent of enrollees in nonstandard PDPs and 69 percent of enrollees in nonstandard MA-PDs were in plans that used such a tier. In 2008, those shares were 92 percent of enrollees in nonstandard PDPs and 96 percent of enrollees in nonstandard MA-PDs (Figure 4-6).¹⁶ Most remaining enrollees were in plans that used coinsurance with cost-sharing requirements comparable to those of specialty

tiers. In 2009, the share of PDP enrollees in plans with a specialty tier appears to have declined to 82 percent from 92 percent a year earlier. However, this decline is largely due to changes in the formulary structure of one major sponsor that does not use a specialty tier. That sponsor switched from using the defined standard benefit for some of its plans (with flat 25 percent coinsurance) in 2008 to coinsurance tiers with cost sharing comparable to other plans' tiers for nonpreferred drugs. This means the sponsor's plans are excluded from the denominator in the bars representing PDPs for 2008 (because it used the defined standard benefit) but included in the denominator for 2009.

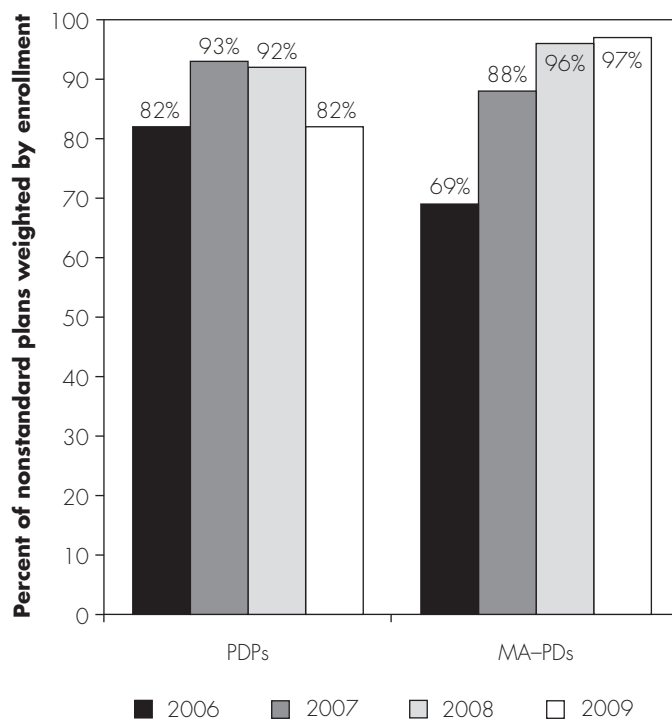
For 2006, CMS did not establish specific criteria for placing drugs on a specialty tier. However, for 2007, CMS defined specialty tiers more clearly: Only Part D drugs with negotiated prices that exceeded \$500 per month could be on a specialty tier. In 2008 and 2009, only drugs with prices that exceed \$600 per month may be on a specialty tier.

Broader use of specialty tiers has important implications for beneficiaries and plans. From an enrollee's perspective, cost-sharing requirements for specialty-tier drugs can be high (at least 25 percent of the plan sponsor's negotiated price before manufacturers' rebates) until the beneficiary reaches the catastrophic levels of spending in Part D's benefit that limit out-of-pocket spending. In addition, under CMS's regulations, enrollees may not appeal cost sharing as they can for other drugs such as those on nonpreferred brand tiers. Because the drugs on specialty tiers are often used to treat very serious illnesses such as rheumatoid arthritis, multiple sclerosis, some cancers, and hepatitis C, these patients could face relatively high cost sharing for medications on top of significant out-of-pocket costs for the rest of their medical care. From a sponsor's perspective, high-cost drugs may be used more widely than the evidence of their effectiveness supports, and higher coinsurance may temper their use. Moreover, if most of a sponsor's competitors use specialty tiers, it may be important to add a specialty tier to limit the risk of attracting sicker enrollees who use very expensive drugs. Otherwise, those expensive drugs would be available for much lower copays.

Although there is wide variation across plans, for 2009, cost-sharing requirements tended to rise among PDPs. Copay levels for the median enrollee in a PDP rose to \$7 per 30-day prescription for a generic drug, \$38 for preferred brand-name drugs, and \$75 for nonpreferred

FIGURE 4-6

Most Part D plans use specialty tiers for some expensive drugs



Note: PDP (prescription drug plan), MA-PD (Medicare Advantage-Prescription Drug [plan]). Nonstandard plans are those that do not use Part D's defined standard benefit, which has a flat 25 percent coinsurance rate for all listed drugs. Calculations are weighted by enrollment. 2009 values were calculated using 2008 enrollment. PDPs exclude employer-only groups and plans offered in U.S. territories. MA-PDs exclude demonstration programs, 1876 cost plans, employer-only groups, special needs plans, and plans offered in U.S. territories. Specialty tiers apply to expensive products and unique drugs and biologics for which enrollees may not appeal for lower cost sharing.

Source: NORC/Georgetown University/Social and Scientific Systems analysis for MedPAC of formularies submitted to CMS.

brands (Table 4-8, p. 296). Cost-sharing requirements have remained steadier for enrollees in MA-PDs. For 2009, the median enrollee in an MA-PD pays \$5 for a monthly supply of generic drugs, \$30 for preferred brand-name drugs, and \$60 for nonpreferred brands.

Under CMS regulations, sponsors must limit cost sharing for specialty-tier drugs to no more than 25 percent of the negotiated price within the benefit's initial coverage limit. However, sponsors may design a plan that uses higher coinsurance to help maintain actuarial equivalence to basic benefits—for example, in a basic plan that has no deductible or in one with a deductible that is lower than the defined standard benefit's deductible (CMS 2008h).

**TABLE
4-8**

Median cost sharing for a month's supply of a prescription drug has risen among PDPs

	PDPs				MA-PDs			
	2006	2007	2008	2009	2006	2007	2008	2009
Copay								
Generic	\$5	\$5	\$5	\$7	\$5	\$5	\$5	\$5
Preferred brand-name drug	28	28	30	38	27	29	30	30
Nonpreferred brand-name drug	55	60	72	75	55	60	60	60
Specialty-tier coinsurance	25%	30%	30%	33%	25%	25%	25%	33%

Note: PDP (prescription drug plan), MA-PD (Medicare Advantage-Prescription Drug [plan]). Calculations are weighted by enrollment. 2009 values were calculated using 2008 enrollment. Generic copay values are for all plans that use dollar copays. Copay values for preferred and nonpreferred brand-name drugs are only for plans that use those tiers. PDPs exclude employer-only groups and plans offered in U.S. territories. MA-PDs exclude demonstration programs, 1876 cost plans, employer-only groups, special needs plans, and plans offered in U.S. territories. Specialty tiers apply to expensive products and unique drugs and biologics for which enrollees may not appeal for lower cost sharing.

Source: NORC/Georgetown University/Social and Scientific Systems analysis for MedPAC of formularies submitted to CMS.

For 2009, the median enrollee in either a PDP or an MA-PD with a specialty tier faces 33 percent coinsurance for those drugs. This situation shows that sponsors are making extensive use of the flexibility that Part D allows for actuarial equivalence in benefit designs, trading off a lower or no deductible for all plan members with higher cost sharing on specialty drugs used by a few enrollees (Hargrave et al. 2007). At the same time, this form of actuarial equivalence may raise out-of-pocket spending and disproportionately affect access for beneficiaries who use these high-cost drugs.

Formulary sizes and utilization management

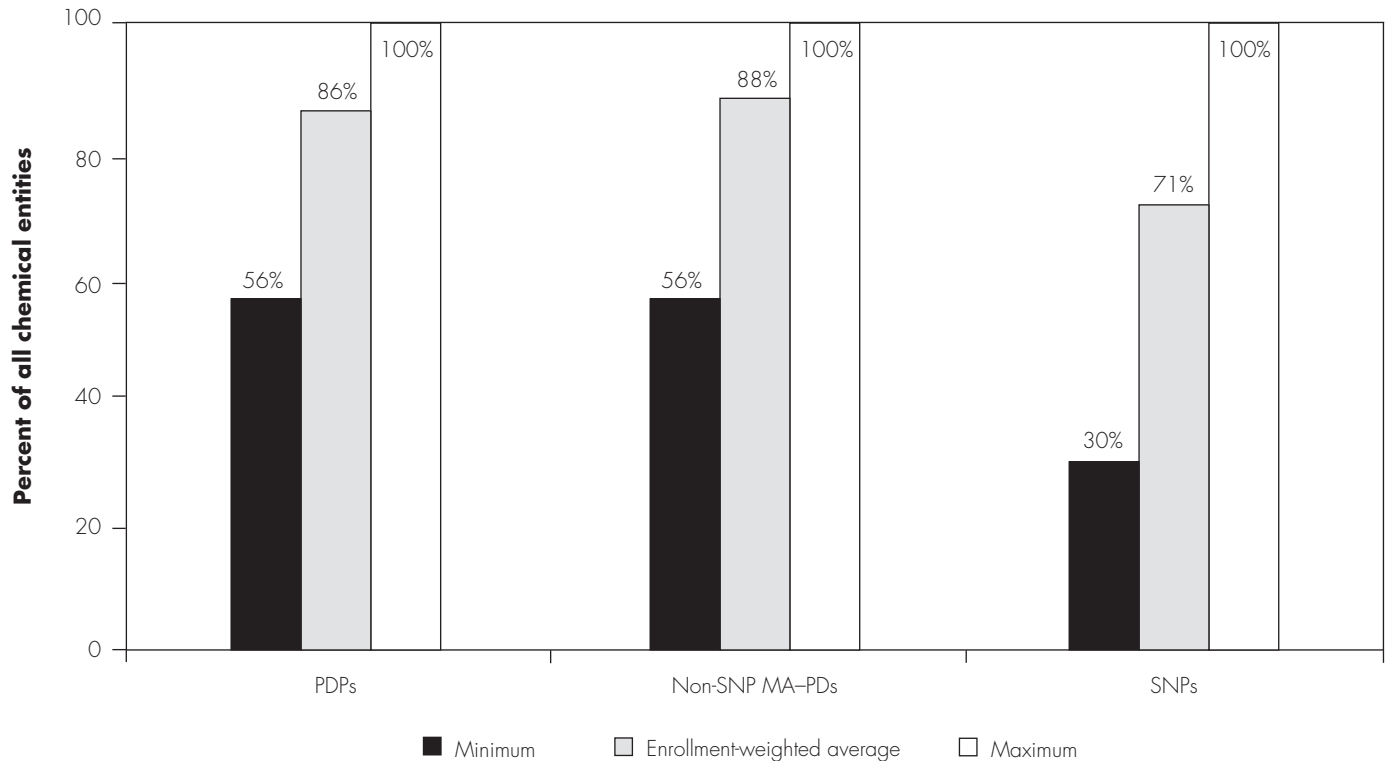
The number of drugs that sponsors list on a formulary can be another way to analyze Part D plans. Note, however, that the number of drugs on a plan's formulary does not necessarily represent beneficiary access to medications. Plans' processes for nonformulary exceptions, prior authorization, quantity limits, and step therapy requirements can have a strong influence on access to certain drugs. For example, unlisted drugs may be covered through the nonformulary exceptions process, which may be relatively easy with some plan sponsors and more burdensome with others. Alternatively, the sponsor may not cover on-formulary drugs in some situations where it requires prior authorization before filling a prescription.

During 2009, enrollees in stand-alone PDPs and non-SNP MA-PDs have similar numbers of drugs listed on their plans' formularies. We estimate that the average PDP enrollee is in a plan that listed 86 percent of all distinct chemical entities on which CMS requires sponsors to

report, while the average MA-PD enrollee was in a plan listing 88 percent (Figure 4-7). However, the number of drugs listed on any given plan's formulary can vary considerably, from 56 percent for plans with the tightest formularies to 100 percent for other plans.

This year, we asked our contractor to also analyze the formularies of SNPs. Those plans show a distinctly different pattern from other MA-PDs in that they appear to have tighter formularies. We estimate that the average SNP enrollee is in a plan that lists 71 percent of the distinct chemical entities on which CMS requires sponsors to report (Figure 4-7). There is also more variation in the size of SNP formularies, with the tightest plan listing 30 percent of chemical entities. Most SNP enrollment is in plans designed for dual eligibles, and dual beneficiaries have no or low cost sharing because they receive the LIS. As a result, sponsors of SNPs may use tighter formularies more extensively to manage drug spending, as they cannot require LIS enrollees to pay differential copays between drug tiers to the same extent that they would with non-LIS enrollees. At the same time, LIS enrollees do not receive cost-sharing assistance for drugs not listed on a plan's formulary, so those individuals would either need to pay out-of-pocket for the drug or switch to a covered medication, which may be a cause for concern to the extent that sponsors fall on the lower end of the distribution in Figure 4-7.

The number of drugs listed on plan formularies varies widely. Our contractor looked for systematic differences on a variety of dimensions. Some of the findings include:

**FIGURE
4-7****PDPs and non-SNP MA-PDs listed similar numbers of drugs on their formularies, but SNPs tended to list fewer drugs**

Note: PDP (prescription drug plan), SNP (special needs plan), MA-PD (Medicare Advantage–Prescription Drug [plan]). Values reflect the percent of all distinct chemical entities listed within CMS’s formulary reference file. The enrollment-weighted average is weighted by 2008 enrollment. PDPs exclude employer-only groups and plans offered in U.S. territories. Non-SNP MA-PDs exclude demonstration programs, 1876 cost plans, employer-only groups, and plans offered in U.S. territories. SNPs are one type of MA-PD. The numbers of plans are: PDPs (1,634), non-SNP MA-PDs (1,876), and SNPs (606).

Source: NORC/Georgetown University/Social and Scientific Systems analysis for MedPAC of formularies submitted to CMS.

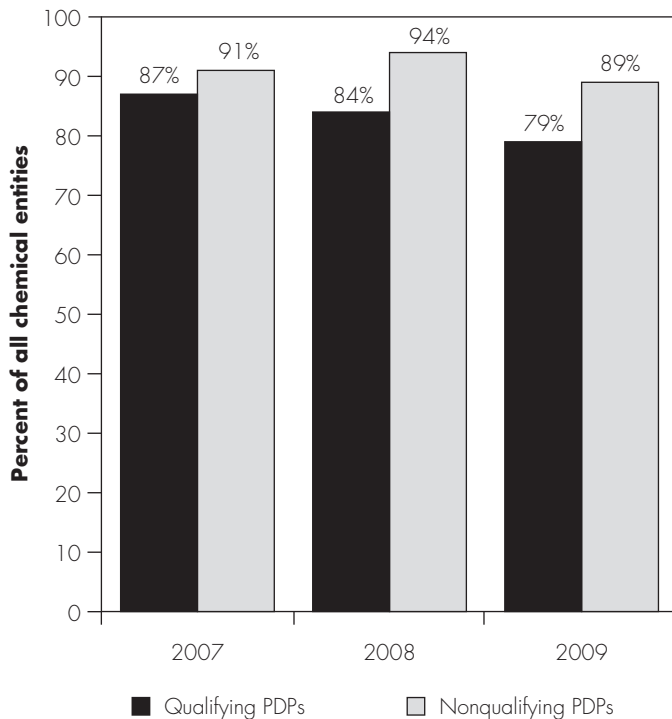
- PDPs that use more tiers tend to list more drugs but have similar numbers of drugs that are unrestricted (i.e., offered at preferred levels of cost sharing and not subject to utilization management) as PDPs with fewer tiers.
- PDPs with enhanced benefits do not tend to list more drugs covered by Part D than PDPs with basic benefits.
- PDPs with higher shares of enrollment in their region tend to have larger formularies.
- Among types of non-SNP MA-PDs, local HMOs tend to have modestly smaller formularies than PFFS plans or preferred provider organizations.

In an earlier analysis of 2006 Part D formularies, our contractor concluded that plans that qualified as premium-free to LIS beneficiaries listed about the same number of drugs as plans that did not qualify (MedPAC 2006). Since 2006, the gap in the size of formularies between PDPs that qualify and those that do not has widened. In 2007, there was a 4 percentage point difference in the average size of formularies for these categories of plans, weighted by enrollment (Figure 4-8, p. 298). In 2008 and 2009, that gap grew to 10 percentage points—79 percent of distinct chemical entities for qualifying PDPs compared with 89 percent for PDPs that did not qualify in 2009.

Formulary size alone does not directly measure access. Still, large differences may raise concern about inequitable access to drugs between LIS enrollees and other beneficiaries. At the same time, because LIS enrollees

**FIGURE
4-8**

Difference in sizes of formularies between PDPs that did and did not qualify as premium-free to LIS enrollees has widened



Note: PDP (prescription drug plan), LIS (low-income subsidy). Values reflect the percent of all distinct chemical entities listed within CMS's formulary reference file, weighted by enrollment. 2009 values were calculated using 2008 enrollment. Excludes plans that qualified based on de minimis waivers in place for 2007 and 2008. PDPs exclude employer-only groups and plans offered in U.S. territories. Medicare Advantage-Prescription Drug plans exclude demonstration programs, 1876 cost plans, employer-only groups, and plans offered in U.S. territories.

Source: NORC/Georgetown University/Social and Scientific Systems analysis for MedPAC of formularies submitted to CMS.

receive extra help with cost sharing, qualifying plans may limit the size of their formularies as a key way to manage drug spending.

Part D plan sponsors apply utilization management tools—including prior authorization, step therapy, and quantity limits—to selected drugs. Sponsors use such tools for drugs that are expensive; potentially risky; or subject to abuse, misuse, or experimental use or to encourage use of lower cost therapies. Some tools are more common than others. For example, all PDPs and almost all MA-PDs use prior authorization for at least one drug on their formulary. For 2009, the average enrollee in either a PDP or an

MA-PD faces some sort of utilization management for 26 percent of the drugs listed on a plan's formulary—an increase from 18 percent in 2007 and 23 percent in 2008. Prior authorization is used for 12 percent of drugs, step therapy for 3 percent, and quantity limits for 16 percent. The use of specific tools varies by drug class. For example, in 2006 Part D formularies, 70 percent or more of drugs listed in the therapeutic class of immune suppressants required prior authorization, while fewer than 5 percent of renin angiotensins (selected hypertension drugs) had similar requirements (MedPAC 2006).

Payments to plan sponsors

Year-to-year trends in the national average bid give policymakers information about how well sponsors are managing drug benefit costs for beneficiaries and taxpayers. However, those trends are an imperfect measure of performance for several reasons. First, bids are projections of sponsors' estimated costs, not actual costs. For example, in 2005, when sponsors were preparing bids for Part D's first benefit year, they had little information on which to base their bids. The large reconciliation payments that sponsors made to Medicare for the 2006 benefit year indicate that many sponsors bid too high. Even though 2009 represents the fourth round of bidding under Part D, some analysts argue that sponsors have only just acquired sufficient claims experience on which to base some aspects of their bids.¹⁷ A second reason for caution is that under the demonstrations described earlier, CMS phased in enrollment weighting over time rather than moving to full enrollment weighting in 2007. Thus, year-to-year trends reflect changes in weighting as well as trends in benefit costs. (Table 4-9 displays average bids by year and percentage changes in those bids measured two ways: The first four columns show averages that reflect CMS's payment demonstration, which phased in enrollment weighting. The last three columns show values using full enrollment weighting.)

Between 2008 and 2009, the projected trend in Part D benefit costs appears high: 11 percent per person (Table 4-9). (This percentage increase is the sum of each year's national average monthly bid amount plus sponsors' average expected reinsurance payments for plan enrollees with catastrophic levels of drug spending. The increase also reflects full enrollment weighting of plan bids for both years.) Over the same period, the percentage increase for the national average monthly bid amount alone (i.e.,

**TABLE
4-9**

Average prospective monthly payments per enrollee for basic coverage

	Amounts used as the basis for prospective payments				Fully enrollment-weighted amounts		
	2006 ^a	2007 ^b	2008 ^c	2009 ^d	2007	2008	2009
Amounts in dollars							
National average monthly bid							
Base beneficiary premium	\$32.20	\$27.35	\$27.93	\$30.36	\$26.23	\$27.28	\$30.36
Monthly payment to plans	60.10	53.08	52.59	53.97	50.36	52.02	53.97
Subtotal	92.30	80.43	80.52	84.33	76.59	79.30	84.33
Expected individual reinsurance	33.98	26.82	29.01	34.73	26.27	27.68	34.73
Total average benefit cost	126.28	107.25	109.53	119.06	102.86	106.98	119.06
Annual percent change							
National average monthly bid							
Base beneficiary premium	N/A	-15%	2%	9%	-19%	4%	11%
Monthly payment to plans	N/A	-12	-1	3	-16	3	4
Subtotal	N/A	-13	0	5	-17	4	6
Expected individual reinsurance	N/A	-21	8	20	-23	5	25
Total average benefit cost	N/A	-15	2	9	-19	4	11

Note: N/A (not applicable). These amounts reflect averages based on bids to provide basic Part D benefits; they do not net out subsequent reconciliation amounts with CMS. They were calculated from bids by plans to provide the defined standard benefit or actuarially equivalent basic benefits, as well as the portion of enhanced Part D coverage attributable to basic benefits. Enrollees in plans with enhanced coverage must pay the full price of benefits that supplement basic coverage. The combination of monthly payments to plans and expected payments for individual reinsurance make up 74.5 percent of total average monthly benefit costs.

a. At the start of Part D, Medicare law directed CMS to weight the bids of stand-alone drug plans equally (with an aggregate weight representing enrollment in traditional Medicare) and weight bids from Medicare Advantage (MA) drug plans by their prior-year MA enrollment.

b. CMS used its general demonstration authority to calculate these values using 20 percent enrollment weighting and 80 percent weighting as in the 2006 approach.

c. CMS used its general demonstration authority to calculate these values using 60 percent enrollment weighting and 40 percent weighting as in the 2006 approach.

d. Bids are fully weighted by prior-year enrollment as called for by law.

Source: MedPAC analysis based on CMS releases of Part D national average monthly bid amounts and base beneficiary premiums for 2006 through 2009, as well as other data provided by CMS.

without expected reinsurance) is 6 percent—similar to the rate of increase in general drug costs measured in the national health accounts. Thus, higher estimates of costs for catastrophic coverage account for much of the 11 percent projected increase in overall Part D costs. CMS believes this increase reflects more about sponsors’ improved ability to project catastrophic spending from their claims experience than an excessive trend. Nevertheless, the Commission will keep a close eye on these components of plan bids.

Each year, CMS reconciles its prospective payments to Part D sponsors by comparing data on actual levels of enrollment, enrollee risk factors, levels of incurred allowable drug costs (after drug rebates and other discounts), individual reinsurance amounts, the LIS, and risk corridors. For 2007, CMS expected to collect

\$18 million—compared with \$4.3 billion collected for 2006—from plan sponsors in reconciliation payments for lower actual costs than expected (Table 4-10, p. 300). The lower amounts for 2007 suggest that sponsors improved their ability to bid more accurately after a year’s experience providing Part D benefits.

The 2007 reconciliation amount of \$18 million nets out several types of Part D payments. It accounts for nearly \$600 million that sponsors owe Medicare from risk corridors that limit plans’ profits and losses, plus \$187 million and \$407 million that CMS owes sponsors for prospective payments that were not high enough for individual reinsurance and LIS cost sharing, respectively. Table 4-10 shows some of the largest amounts owed to and by Medicare for 2007.

**TABLE
4-10**

Largest estimated reconciliation amounts by sponsoring organization

2007 reconciliation amounts (in millions)

	Risk corridors	Individual reinsurance	Low-income cost sharing	Total (in millions)
Total for all organizations	-\$599	\$187	\$407	-\$18
Top organizations that owe Medicare:				
UnitedHealthcare/PacifiCare	-190	-110	-290	-590
Wellpoint	-59	-45	-130	-230
CVS Caremark	-43	-33	-51	-130
NewQuest Health Solutions	-25	-40	-44	-110
Health Net	-12	22	-77	-67
Top organizations that Medicare owes:				
MemberHealth	54	167	225	446
Humana	-78	-150	593	358
Universal American	-27	109	70	152
CIGNA	40	53	40	133
Health Care Service Corporation	-3	59	65	122

Note: The low-income cost sharing, reinsurance, and risk sharing amounts may not equal the total reconciliation amount because of rounding and an adjustment made for budget neutrality in the Part D Payment Demonstration program.

Source: CMS 2008c.

Medication therapy management programs

The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA) requires PDPs and MA-PDs to implement medication therapy management programs (MTMPs) to improve the quality of pharmaceutical care high-risk beneficiaries receive. Legislators intended MTMPs to improve medication use and reduce adverse events for beneficiaries taking multiple medications. Neither the legislation nor subsequent CMS regulations provide much guidance on how these programs should be designed or implemented. Currently, sponsors' MTMPs differ on the number and type of chronic conditions and prescriptions a beneficiary must have to be eligible, how beneficiaries are targeted and enrolled, the kinds of interventions provided to enrollees, and the outcomes sponsors measure. A small percentage of beneficiaries are enrolled in MTMPs, and we do not have sufficient data to determine whether the programs are increasing the quality of pharmaceutical care to participants.

In conducting our review of medication therapy management, we examined research evaluating MTMPs in general and available data on MTMPs under Part D. We also conducted interviews with CMS, pharmacists, health plan sponsors, pharmacies, trade associations, and companies that provide medication therapy management services under contract to sponsors.

Pharmacists' medication therapy management services vary

Clinical pharmacists have been providing medication reviews and other clinical services to patients for years, but no generally accepted definition existed in 2006, when Part D was implemented, of what constituted an MTMP (see text box). Private employers and some state Medicaid programs have programs in which pharmacists or other medical providers educate patients about their chronic conditions and medication use, examine their drug regimens for potential drug interactions or other inappropriate prescribing, analyze lab results to see if medications are achieving desired therapeutic outcomes, and encourage patient adherence to their drug regimens. Some programs focus on collaboration between physicians

Defining medication therapy management

Since the start of the Medicare drug benefit, pharmacists, pharmacy representatives, and health insurers have been seeking to develop consensus on what constitutes medication therapy management services. Groups of these stakeholders have collaborated on defining core aspects of effective medication therapy management programs (AMCP 2008). For example, 11 stakeholder organizations identified 5 core elements of a medication therapy management service model provided by pharmacists (American Pharmacists Association and National Association of Chain Drug Stores Foundation 2008). They include:

- **Medication therapy review:** The pharmacist gathers data including relevant medication history, assesses physical and overall health status, reviews and assesses laboratory data, evaluates the patient to detect symptoms that could be attributed to adverse events, and identifies and prioritizes medication-related problems.
- **Personal medication record:** The pharmacist creates a list for each patient of all the medications and supplements the patient is taking. The record can include questions for patients to ask their physicians about the medications.
- **Medication-related action plan:** The plan is a list of actions for patients to take to manage their therapy (e.g., reminders of how and when they should take their medication).
- **Intervention and referral:** The pharmacist contacts the patient's physician to report potential medication problems (e.g., the pharmacist may determine that the patient has medication-related side effects and contact the prescribing physician).
- **Documentation and follow-up:** The pharmacist documents services provided in a consistent manner and schedules a follow-up appointment as necessary. ■

and pharmacists to ensure that patients receive the most appropriate drug regimen for their conditions. Other programs emphasize patient education. For example, some employer-sponsored pharmacy management programs are designed to increase employee productivity by teaching individuals to manage chronic conditions like asthma and diabetes. These programs generally target working-age patients and individuals with a single chronic condition and their experiences may not be relevant for Part D MTMPs (Bunting et al. 2008, Bunting and Cranor 2006, Fera et al. 2008).

The literature contains few large-scale evaluations of medication therapy management. Programs are difficult to compare because they differ in terms of goals, targeted populations, and interventions. Researchers have found some evidence that participation in MTMPs is associated with changes in intermediate quality indicators like improvements in hemoglobin A1c and low-density lipoprotein cholesterol levels (Abt Associates 2008). Evidence on cost savings is mixed. While most program organizers cite figures showing that MTMPs save money, analysts question the rigor of these evaluations. Program

organizers tend to base larger savings estimates on medical costs that may have been avoided by more appropriate prescribing. Additionally, evaluations often do not take into account the cost of the interventions (Abt Associates 2008).

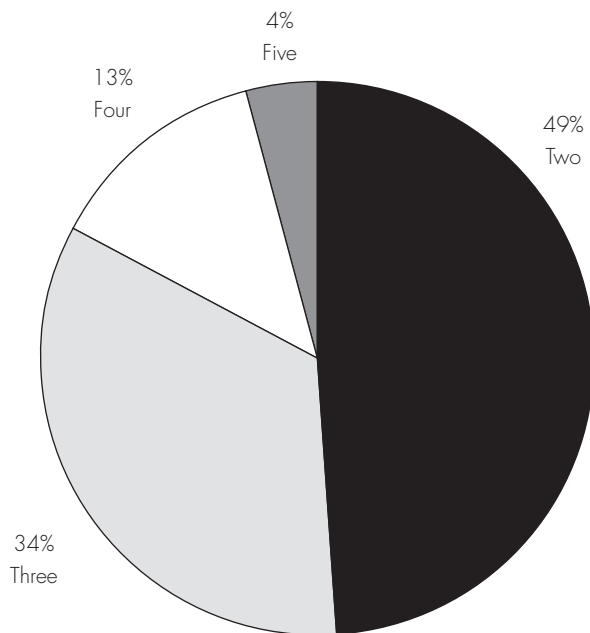
We interviewed several pharmacists who have been providing medication management services to private clients, some for more than a decade. Clients tend to be individuals with complex drug regimens, who contact the clinical pharmacist after receiving referrals from their physician, case manager, a friend, or a relative. Medication management services are generally not covered by insurance and clients pay out of pocket for medication reviews. In one case, a local area agency on aging sponsors the services periodically at a senior center, but most pharmacists we interviewed visit clients in their homes.

Although varying in the particulars, protocols for delivering services shared similarities among the pharmacists we interviewed. In general, we were told that the pharmacist:

- Contacts the client's primary physician and explains the kind of services that can be provided.

**FIGURE
4-9**

Most Part D MTMPs require that beneficiaries have at least two or three chronic conditions to qualify for MTMPs, 2008



Note: MTMP (medication management therapy program). In 2009, the percentage of plans requiring that beneficiaries have only two chronic conditions decreased and the percentage of plans requiring that beneficiaries have at least three chronic conditions increased.

Source: MedPAC analysis of data from CMS's (2008d) fact sheet.

- Examines the client's medical records, including lab results; visits the client to document all the drugs the client is taking, including over-the-counter medications and nutritional supplements; and questions the client about the reason for taking the drugs and the symptoms experienced.
- Sends a report to the client and the physician documenting potential drug interactions and inappropriate drugs or dosages and makes recommendations that may call for less expensive medications to replace other drugs or call for an additional drug.
- Documents all interventions and schedules follow-up visits with patients as appropriate. The pharmacist may also pay a follow-up visit if the client is hospitalized and the drug regimen changes.

Our interviewees pointed out that pharmacists are very familiar with drug side effects and interactions. No other health care professional receives as much training on the composition, mechanisms of action, and use and effect of drugs on the human body. Frequently, clients may be treated for problems that are actually caused by an interaction of drugs on their regimen. By changing the regimen, they may eliminate an additional medication used to treat the side effect.

As they interact with clients, pharmacists often educate patients. They explain why the physician prescribed a drug and how it should be taken (e.g., with food, in the evening). They emphasize adherence to therapy. Some teach patients with diabetes to monitor their blood sugar.

MTMPs under Part D must comply with federal requirements

Part D has led to an expansion in the use of MTMPs. The MMA requires plan sponsors to develop MTMPs to increase the clinical quality of pharmaceutical care. All PDPs and MA-PDs are required to offer MTMPs to their beneficiaries with multiple chronic conditions who take multiple drugs and are expected to average at least \$4,000 per year in drug costs.¹⁸

Under the statute, a Part D sponsor must establish a program that:

- ensures optimum therapeutic outcomes for targeted beneficiaries through improved medication use,
- reduces the risk of adverse events,
- is developed in cooperation with licensed and practicing pharmacists and physicians, and
- establishes the fees to be paid to pharmacists or others for providing medication therapy management services.

Beneficiary participation is voluntary and individuals may not be denied medications for choosing not to participate in the program. Under Part D, beneficiaries do not pay for this service. Additional requirements include plan sponsors' responsibilities related to their Part D bids. Sponsors must provide a description of their MTMP as part of their annual bid. The program description includes eligibility requirements, enrollment methods, frequency and type of interventions, resources used providing the service, and method of documenting and measuring

outcomes (CMS 2008e). MTMP costs are considered administrative and are included in the bids.

In their bid submissions, sponsors must report the minimum number of chronic conditions a beneficiary must have to qualify for participation in the program. If the sponsor requires specific chronic conditions, they must be identified. The sponsor also must identify the number and type of covered Part D drugs required (e.g., sponsors may not consider drugs used to treat an acute condition as eligible for medication therapy management services). The sponsor must estimate the annual drug cost beneficiaries are likely to incur and describe their method of estimation.

Sponsors must also describe how their MTMP will operate. For example, sponsors must explain how they will identify qualifying beneficiaries and enroll and disenroll them from the program. They must detail how they predict annual drug costs based on monthly expenditures. The method must allow them to identify candidates for MTMPs before their drug expenditures reach \$4,000. The sponsors describe the kinds of interventions enrollees receive (e.g., medication review), how frequently they provide services, and the recipient of the service (e.g., the beneficiary or the beneficiary's physician). Sponsors detail the type of provider who will perform program services (e.g., pharmacist, nurse, or physician) and whether the provider is employed by the sponsor or an outside contractor. In the case of outside personnel, sponsors must explain how fees will be established. Lastly, they must describe their method of documenting plan interventions and measuring outcomes.

Because of the lack of evidence on the dimensions of effective MTMPs, CMS provided minimal criteria or standards to sponsors when Part D began. CMS has not specified the content of the programs, who should offer them, or which individuals should be targeted. Sponsors determine the specific chronic conditions that apply. Sponsors also must measure outcomes of their programs, but each sponsor decides which outcomes to track and how to measure them.

Some interviewees question the appropriateness of the statutory and regulatory requirements. For example, individuals with multiple chronic conditions and high medical costs who might benefit from MTMP services may have annual expenditures below \$4,000 if they have untreated indications, use generics to reduce their drug costs, or do not adhere to their medication regimen.

Part D's MTMP participation is small and sponsors' programs vary across several dimensions

CMS has not released enrollment figures for MTMPs, but according to sponsor officials, MTMP is a small program, with enrollment increasing slowly. In 2006, 6.6 percent of beneficiaries enrolled in a plan with an MTMP were enrolled in the program. In 2007, 10.8 percent of enrollees in Part D plans with MTMPs were eligible to receive program services and 8.4 percent were enrolled in their plan's program. Our analysis of 2006 Part D data suggests that 14 percent of beneficiaries enrolled in Part D (about 3.4 million beneficiaries) had Part D spending of \$4,000 or more, the minimum spending required for program eligibility.

Currently, plan sponsors take varied approaches to MTMP. For example, sponsors:

- use eligibility criteria that range from less to more restrictive.
- use different enrollment methods.
- provide diverse services.
- provide services in various settings.
- collect a variety of outcome measures.

Details follow on eligibility criteria, enrollment methods, interventions, and outcome data collected.

Eligibility criteria

CMS requires sponsors to provide MTMP services to beneficiaries with multiple chronic conditions who are taking multiple drugs. Sponsors have interpreted this standard in different ways. The minimum number of chronic conditions required for beneficiaries to qualify ranges from two to five (Figure 4-9), and the minimum number of covered Part D prescriptions required for beneficiaries to qualify ranges from 2 to 15 (Table 4-11, p. 304) (CMS 2008d).

Despite the variation, we can identify some outliers. For example, most plans—83 percent—require that beneficiaries have two or three chronic conditions to qualify for medication therapy management services, whereas only 4 percent require that a beneficiary have at least five chronic conditions to be eligible for these services (CMS 2008d).

**TABLE
4-11**

Minimum number of covered Part D drugs required by MTMPs, 2007

Minimum number of covered Part D drugs	Number of MTMPs	Percent of programs		
		All MTMPs	MA-PDs	PDPs
2	46	6.5%	6.2%	7.8%
3	64	9.0	8.4	12.6
4	60	8.4	8.2	9.7
5	145	20.4	19.0	28.2
6	91	12.8	12.8	12.6
7	66	9.3	9.4	8.7
8	142	19.9	21.7	9.7
9	21	2.9	3.0	2.9
10	53	7.4	8.2	2.9
12	22	3.1	2.8	4.9
15	2	0.3	0.3	0.0

Note: MTMPs (medication management therapy programs), MA-PDs (Medicare Advantage–Prescription Drug [plans]), PDPs (prescription drug plans).

Source: CMS (2008d) fact sheet.

Sponsors also have discretion in determining which chronic conditions qualify for MTMP eligibility. According to a CMS fact sheet, 90 percent of 2008 MTMPs specify the chronic conditions that apply for program eligibility. The most frequently specified conditions in 2008 MTMPs were:

- diabetes
- heart failure
- hypertension
- dyslipidemia
- chronic obstructive pulmonary disease
- asthma
- rheumatoid arthritis
- depression
- osteoporosis
- osteoarthritis

The same conditions were the most frequently targeted in 2007. Figure 4-10 shows the percentages of MTMPs that specify each of the top 10 conditions in their eligibility criteria.

Plans also vary greatly in the designated minimum number of prescription drugs needed to qualify for their MTMPs.

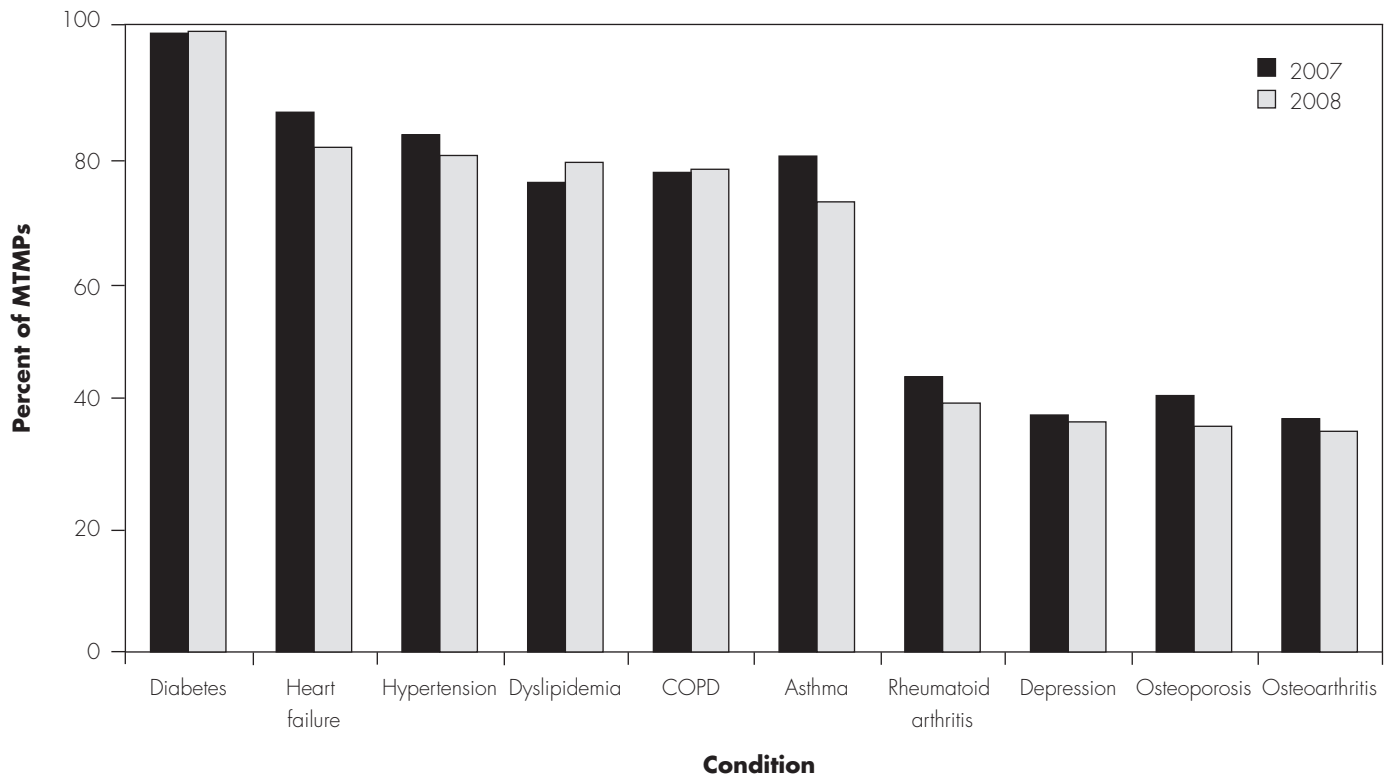
Most plans—89 percent—require fewer than 10 covered Part D drugs to qualify for their programs (CMS 2008d). The remaining 11 percent target only those beneficiaries who take 10 or more drugs, with two plans (which represent 0.3 percent of all plans) targeting only those who take at least 15 covered Part D drugs (CMS 2008d). Table 4-11 illustrates the distribution of prescription minimums across MTMPs.

Method of enrollment

Sponsors use different techniques to enroll eligible beneficiaries in their MTMPs. CMS has sorted these enrollment methods into two basic categories—opt in and opt out (CMS 2008d). Under the opt-in model, beneficiaries who meet a set of designated eligibility criteria are contacted and asked to sign up for the MTMP. Those beneficiaries who choose to receive services are then considered enrolled. Under the opt-out model, sponsors reach out to beneficiaries until they actively indicate that they do not want to receive MTMP services. Although these two models represent two separate approaches in theory, the reality is more complex, and our interviews revealed that the enrollment methods of many sponsors cannot be so easily categorized.

Type of intervention

Each plan sponsor provides a unique set of services under its MTMP. While some sponsors focus on face-to-face

**FIGURE
4-10****Nearly all MTMPs target diabetes**

Note: MTMP (medication therapy management program), COPD (chronic obstructive pulmonary disease).

Source: CMS (2008d) fact sheet.

medication reviews conducted by community pharmacists, others rely on in-house call centers or educational newsletters (CMS 2008d). The 10 most common interventions in 2008 were:

- face-to-face interactions
- phone outreach
- medication reviews
- refill reminders
- intervention letters
- educational newsletters
- drug interaction screenings
- polypharmacy screenings
- disease-specific clinical initiatives
- medication profiles

Our interviewees disagreed about the most effective way to provide MTMP services. Some believed that beneficiaries benefited most from face-to-face interaction with community pharmacists. Others argued that centralizing the program at a call center allowed the sponsor to provide more specialized services to beneficiaries with specific conditions.

Once a beneficiary is enrolled in the program, the sponsor must arrange to provide MTMP services. Sponsors may target specific interventions based on the enrollee's health status or other factors. For example, a sponsor may provide face-to-face interaction only to a select group of enrollees that they believe will benefit from the encounter.

If the sponsor contracts with community pharmacies to provide MTMP, it provides the enrollee's name and contact information to the nearest participating pharmacist. The pharmacist contacts the beneficiary and arranges a time and place for a medication review. Generally, participating pharmacies set aside a room for private

consultations. Sometimes, the pharmacist meets with the beneficiary at his or her home.

CMS does not collect information on whether sponsors provide follow-up MTMP appointments to enrollees. Such appointments might be used to track the effect of changes in medication regimens or to monitor patient adherence to medication. Only one of the pharmacists we interviewed noted that he could provide a follow-up appointment each year to enrollees if necessary. Others reported that they provided medication reviews on an annual basis. Sponsors provided some services like medication newsletters monthly to MTMP enrollees.

Many MTMPs reach out to prescribers as well as beneficiaries. In fact, most MTMPs—about 90 percent—interact with both the beneficiary and the physician. However, about 10 percent of plans work with the beneficiary only and do not contact physicians (CMS 2008d). In these programs, if an enrollee is taking inappropriate drugs or drugs that are causing side effects, the enrollee is expected to discuss the issue with his or her physician at the next appointment. A number of studies have shown that collaboration between pharmacists and physicians increases the effectiveness of medication management (Stockl et al. 2008, Williams et al. 2004). The Commission is concerned that programs that do not report their findings to beneficiaries' physicians will have limited ability to improve the quality of care program enrollees receive.

Despite certain financial incentives, MTMPs in MA-PDs do not appear to outperform those in stand-alone PDPs

Despite structural incentives in MA-PDs for MTMPs to perform better than those in stand-alone PDPs, we found no evidence that PDPs, in the aggregate, provided less robust programs to their enrollees than MA-PDs. In principle, MA-PDs might save on medical costs if they provide enhanced MTMPs that increase beneficiary adherence to appropriate pharmaceutical regimens.

In contrast, stand-alone PDPs are at risk for increased drug spending and would not benefit if the enrollee's medical costs were reduced as a result of their programs. In fact, PDPs' administrative and utilization costs could increase if their MTMP protocols were successful in getting enrollees to adhere to therapy regimens.

However, sponsor officials we interviewed said they provided the identical MTMPs to their health plan and stand-alone drug plan members who meet their criteria for enrollment.

Moreover, CMS data indicate that PDPs tend to have more inclusive MTMP eligibility criteria than MA-PDs. About 56 percent of PDPs required a minimum of two chronic conditions, compared with about 48 percent of MA-PD plans that required two chronic conditions. Similarly, the minimum number of covered Part D drugs required for beneficiaries to qualify for services tended to be lower in PDPs than in MA-PDs (CMS 2008d).

In contrast, PDPs were less likely than MA-PDs to contact physicians as part of their MTMPs. Approximately 92 percent of MA-PD MTMPs—compared with only 78 percent of PDP MTMPs—included physician-targeted interventions (Figure 4-11) (CMS 2008d).

Most plans (98 percent) used pharmacists to furnish MTMP services. MA-PDs were more likely to employ in-house staff, whereas PDPs were more likely to use outside personnel to operate their MTMPs (CMS 2008d) (data not shown).

CMS collects minimal outcome data

Plan sponsors collected data on a wide spectrum of outcomes. These data ranged from process measures (e.g., number of outbound calls, interventions received, and eligibility) to economic measures (e.g., change in prescription costs) and quality indicators (e.g., change in therapy, adherence, and drug-drug interactions). Many plan sponsors also monitored patient satisfaction (CMS 2008d).

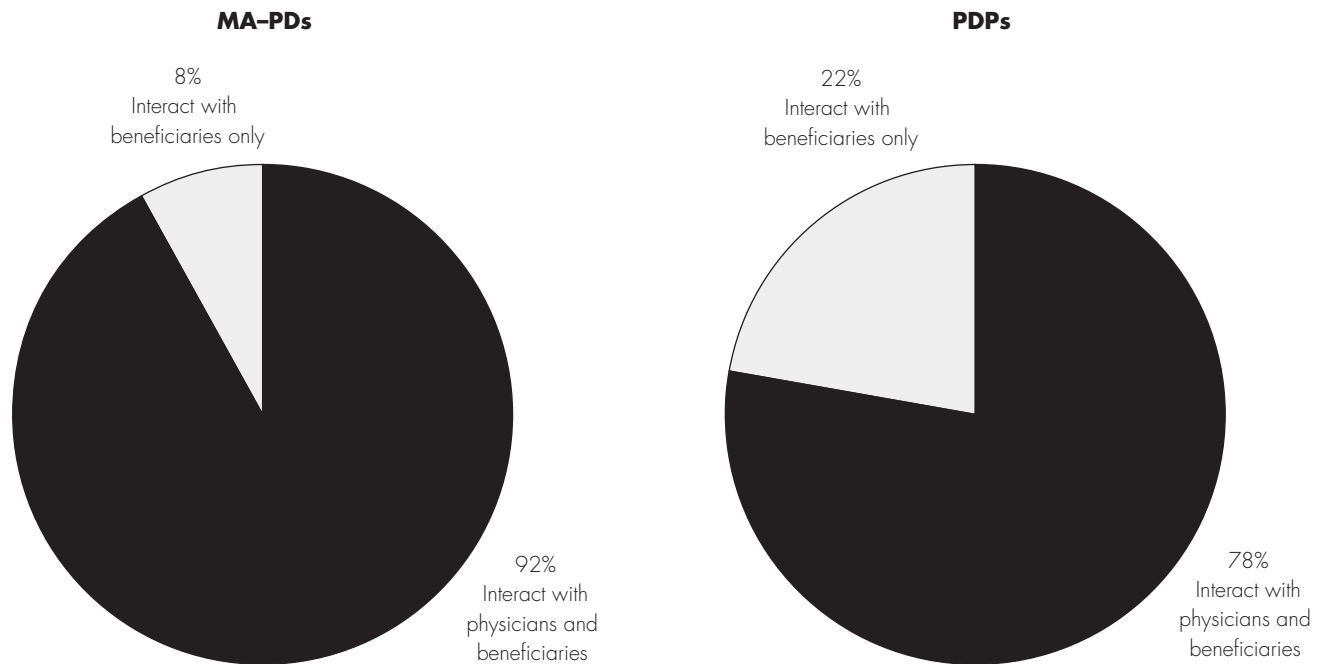
Although plan sponsors must report what outcome measures they collect and how they measure them in their annual bid, they do not report the outcomes to CMS. The agency currently collects limited data on MTMP outcomes. All sponsors must report:

- number of eligible beneficiaries,
- number of enrolled beneficiaries,
- method of enrollment,
- number of disenrolled beneficiaries and reason for disenrollment, and
- total prescription drug cost per MTMP beneficiary per month.

Since 2007, sponsors have been required to report the number of covered Part D 30-day equivalent prescriptions per MTMP beneficiary per month in addition to total prescription drug costs per beneficiary per month.

**FIGURE
4-11**

MA-PDs are more likely than PDPs to contact physicians, 2008



Note: MTMPs (medication therapy management programs), MA-PDs (Medicare Advantage–Prescription Drug [plans]), PDPs (prescription drug plans).

Source: CMS (2008d) fact sheet.

CMS has begun requiring sponsors to report the names of plan members enrolled in MTMPs. The agency expects to use this information to measure the effect of MTMP interventions on beneficiary health outcomes, drug costs, and other medical spending.

Lacking sufficient program data, suggested improvements to Part D MTMPs are based on anecdotal evidence

After two years, analysts have limited information about whether MTMPs are improving the quality of pharmaceutical care for beneficiaries with multiple medications. The small number of enrollees and the variety of eligibility, enrollment, intervention strategies, and outcome measures hamper systematic evaluations. For example, we do not know whether Medicare MTMPs:

- improve patient adherence to medication.
- result in more appropriate prescribing.
- affect drug spending.
- affect utilization of other medical services.

We also have no information on the average duration of enrollment within MTMPs and the extent to which enrollment is automatically rolled over each year.

For more in-depth knowledge of the program, Commission staff conducted about 30 interviews with pharmacists and representatives from health plan sponsors, pharmacy benefit managers, pharmacies, trade associations, companies that provide medication therapy management services for sponsors on a contract basis, and quality experts.¹⁹ One theme we heard consistently was the need for more standardization. Interviewees discussed the need for greater uniformity in minimum program requirements, collection of outcomes data, and documentation. For many of our interviewees, these factors were important not only to improve the quality of MTMPs but also to enable them to convince their own organizations to invest in inclusive programs with multiple interventions.

Pharmacy representatives emphasized that MTMP practices increase their cost of doing business; many retail pharmacies are not willing to dedicate the time and space needed to participate in MTMPs without assured

payment. The stores must create a private space for counseling sessions between pharmacists and clients, reducing the space available for inventory. They may also have to increase staffing levels. A pharmacist cannot stop dispensing drugs to customers to provide medication therapy to enrollees. The pharmacist must make an appointment with the enrollee for counseling and the pharmacy must have another pharmacist dispensing drugs for the store.

In addition to these costs, pharmacy representatives emphasized that current practice results in high administrative costs. Pharmacists must be trained separately to participate in each plan sponsor's MTMP because sponsors use different types of documentation and different modes of reporting (e.g., some use web-based reporting platforms, others do not). These added costs affect the willingness of pharmacies to participate in multiple programs, especially given the small number of referrals each pharmacist is likely to receive.²⁰ Some interviewees suggested that stakeholders should work together to create a standard reporting platform and documentation template.

Some sponsor representatives argued that it is hard to make the business case within their companies in support of a multidimensional program when CMS approves programs that provide minimal interventions. For example, one sponsor representative who directs a program with inclusive eligibility requirements and a policy to provide multiple interventions to enrollees noted that without stricter requirements, he had to justify his program two ways. He had to answer questions from corporate officers about why their plan had such an inclusive program when others that were less inclusive (requiring enrollees to have 10 to 15 separate prescriptions each month) could be approved. At the same time, he had to answer to outside groups who questioned why the program did not provide more services.

Although CMS does not have the data to determine what eligibility standards or program structures are most effective, it has the authority to tighten minimum requirements when it reviews plan bids. For example, it could limit the number of prescriptions or conditions a sponsor could require for program eligibility or mandate certain types of interventions (e.g., sponsors must notify physician if they discover drug interactions).

CMS could also require program interventions when an enrollee transitions from one site of care to another (e.g., beneficiary is released from the hospital). One recent study found that about 7 percent of patients reported prescription-related problems within a few days of hospital discharge (Kripalani et al. 2008).

A number of interviewees suggested that sponsors be required to measure and report specific outcomes. More standardized collection and reporting of outcome measures could be used to determine whether programs are meeting their goals of improving the quality of pharmaceutical care, what patient populations benefit from these programs, and what interventions are most successful.

CMS proposes modifying MTMP requirements for 2010 by establishing more specific enrollment, targeting, intervention, and outcomes reporting requirements (CMS 2009). Under this proposal, all sponsors must:

- target beneficiaries for enrollment at least quarterly;
- enroll beneficiaries using an opt-out method only;
- limit eligibility requirements to no more than three chronic conditions and eight drugs;
- target beneficiaries with expected drug costs that exceed \$3,000;
- provide a minimum level of services including interventions for both beneficiaries and providers and an annual medication review for beneficiaries; and
- measure and report outcomes on the number of medication reviews, provider interventions, and changes in therapy resulting from interventions.

CMS is examining the experiences of MTMPs over the past three years. It has established a work group within the agency and intends to analyze data to see which programs show the most positive impact on medication use. In October 2008, CMS announced that it had contracted with Optimal Solutions to help identify standardized outcomes that could be measured by all Part D sponsors (CMS 2008f). This research has the potential to answer many important questions about Medicare MTMPs. The Commission will closely follow the results of this project. ■

Endnotes

- 1 See, for example, the Commission's work on reassessing relative value units for physician services in Medicare's fee schedule (MedPAC 2006).
- 2 Dual eligibles and enrollees in Medicare savings programs are deemed into the LIS. Other Medicare beneficiaries may apply to receive the LIS through the Social Security Administration if they have low income and assets.
- 3 They may remain in their existing plan if they choose to pay the additional premium above the LIS benchmark.
- 4 If an individual is receiving the LIS and is also in a long-term care setting, only the multiplier for the institutionalized status applies as it is the higher of the two.
- 5 The regression model included dummy variables for 48 drug classes.
- 6 Drug manufacturers typically pay plan sponsors or their pharmacy benefit management companies rebates for placing their brand-name drugs on the plan's formulary or on a preferred cost-sharing tier and then for steering enrollees toward using those drugs. These payments are called manufacturers' rebates—a concept distinct from Part C rebate dollars that we describe later in this chapter from the MA payment system. Typically, Part D sponsors use manufacturers' rebates to lower their plans' premiums rather than lowering drug prices at the point of sale. For more on how drug manufacturers use rebates, see the Congressional Budget Office description (CBO 2007).
- 7 In 2006, dual eligibles and other LIS beneficiaries were randomly assigned to qualifying plans through an autoassignment process. Because most of them were in traditional Medicare rather than in MA plans, most were autoassigned to stand-alone drug plans rather than MA-PDs.
- 8 In the first few years of Part D, a handful of PDP sponsors offered products that covered some brand-name and generic drugs in the coverage gap. However, those plans attracted beneficiaries with relatively high drug spending and they experienced financial losses. In the following years, nearly all affected sponsors withdrew those products from the market.
- 9 Some MA plans do not provide drug benefits. For all other types of plans except SNPs and PFFS plans, once a sponsor offers an MA-PD in a service area, it may also offer an MA plan without drug benefits in the same service area. Sponsors of PFFS plans do not have to offer a plan option that includes Part D benefits, although many do.
- 10 Under past CMS guidelines, SNPs could enroll some individuals who were not dual eligibles, were not institutionalized, or did not have the chronic condition in question.
- 11 In non-Medicare markets, most formularies are variations of two basic models: open or closed. In an open formulary, a payer covers all drugs in most, if not all, therapeutic classes and may encourage enrollees to use preferred drugs through tiered cost sharing. In a closed formulary, the payer does not reimburse for drugs unless they are listed on the formulary or are covered through an exceptions process. Many payers have moved to a hybrid of open and closed formularies that uses three cost-sharing tiers: low copays for generic drugs, higher but still relatively low copays for preferred brand-name drugs, and significantly higher copays for nonpreferred brands. (Formularies are discussed more broadly elsewhere (MedPAC 2004).)
- 12 CMS reviews sponsors' formulary submissions, and sponsors that have not met CMS's requirements must supplement their formularies with additional drugs. After CMS approves formularies (in August), sponsors may include additional drugs throughout the year, but sponsors may not make negative changes (removing drugs, placing them on a higher copay tier, or adding utilization management) between the time of formulary approval and March 1 of the contract year. Similarly, sponsors may not make negative changes to their formulary after July of each year.
- 13 Consider, for example, the case of paroxetine, an antidepressant also known under the brand name Paxil[®]. Antidepressants are one of six protected therapeutic classes in which plans must cover all or substantially all drugs. By conducting the analysis at the level of chemical entities, plans are credited with including paroxetine on their formulary when they list the generic version (paroxetine hydrochloride) even if they do not list Paxil[®], its continuous release version Paxil CR[®], or the brand-name drug Pexeva[®] (paroxetine mesylate) manufactured by a different company.
- 14 Plans submitted formularies to CMS with a variety of structures, ranging from one to eight tiers. However, not all tiers reflect cost-sharing differences for enrollees; some plan formularies include several tiers that have the same cost sharing. For our formulary analysis, we delineate tiers only when they mark differences in cost sharing.

- 15 The fact that a much larger percentage of PDP enrollees are in plans that use 25 percent coinsurance rather than tiered copays reflects the fact that recipients of Part D's LIS make up a much higher percentage of total PDP enrollment than MA-PD enrollment. For 2006, CMS autoassigned LIS enrollees randomly among plans that had premiums below regional threshold values. Plans with the defined standard benefit (which uses 25 percent coinsurance) tend to have lower premiums than plans with tiered copays.
- 16 On the plan formulary data, CMS does not indicate which were specialty tiers. Therefore, there may be some tiers that offer specialty-type drugs. Tiers for nonspecialty injectable drugs in some plan formularies are an example.
- 17 For example, CMS began requiring plan sponsors to include information about spending and use of drugs on specialty tiers beginning with the bid-pricing tool used for building 2008 bids.
- 18 Drug plans provided by PFFS plans are not required to offer MTMPs to their enrollees.
- 19 We also asked physicians and beneficiaries about MTMP in 2007 focus groups but none had any experience with the program.
- 20 For example, one pharmacist who has been providing MTMP services for two years told us that he had two patients in 2008.

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CHAPTER

5

**Public reporting of physicians'
financial relationships**

R E C O M M E N D A T I O N S

5-1 The Congress should require all manufacturers and distributors of drugs, biologicals, medical devices, and medical supplies (and their subsidiaries) to report to the Secretary their financial relationships with:

- physicians, physician groups, and other prescribers;
- pharmacies and pharmacists;
- health plans, pharmacy benefit managers, and their employees;
- hospitals and medical schools;
- organizations that sponsor continuing medical education;
- patient organizations; and
- professional organizations.

COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0

.....
5-2 The Congress should direct the Secretary to post the information submitted by manufacturers on a public website in a format that is searchable by:

- manufacturer;
- recipient's name, location, and specialty (if applicable);
- type of payment;
- name of the related drug or device (if applicable); and
- year.

COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0

.....
5-3 The Congress should require manufacturers and distributors of drugs to report to the Secretary the following information about drug samples:

- each recipient's name and business address;
- the name, dosage, and number of units of each sample; and
- the date of distribution.

The Secretary should make this information available through data use agreements.

COMMISSIONER VOTES: YES 16 • NO 1 • NOT VOTING 0 • ABSENT 0

.....
5-4 The Congress should require all hospitals and other entities that bill Medicare for services to annually report the ownership share of each physician who directly or indirectly owns an interest in the entity (excluding publicly traded corporations). The Secretary should post this information on a searchable public website.

COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0

.....
5-5 The Congress should require the Secretary to submit a report, based on the Disclosure of Financial Relationships Report, on the types and prevalence of financial arrangements between hospitals and physicians.

COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0

Public reporting of physicians' financial relationships

Chapter summary

Drug and device manufacturers have extensive financial relationships with physicians, academic medical centers, professional organizations, and other health care entities. These financial ties have led to many advances in medical research, technology, and patient care. However, they may also create conflicts between the commercial interests of manufacturers and physicians' obligation to do what is best for their patients.

Manufacturers inevitably interact with physicians, who play an important role in developing drugs and devices by overseeing clinical trials, inventing products, and providing expert advice. Moreover, manufacturers educate physicians about the use of their products through marketing efforts, training programs, and support of continuing medical education activities. Some relationships between manufacturers and physicians are explicitly commercial but others are more subtly so. There is evidence that at least some interactions are associated with rapid prescribing of newer, more expensive drugs and with physician requests that such drugs be added to hospital formularies (Wazana 2000). There is also concern that manufacturers' influence over

In this chapter

- Reporting physicians' financial relationships with drug and device manufacturers
- Reporting physicians' financial relationships with hospitals and other providers

physicians' education may skew the information physicians receive. The line between appropriate and inappropriate interactions may not always be clear, but there is no doubt that those relationships should be transparent. Transparency does not imply that all—or even most—of these financial ties undermine physician–patient relationships.

Requiring manufacturers to publicly report their financial relationships with physicians and other health care organizations should have several important benefits. It could discourage physicians from accepting gifts or payments that violate professional guidelines. It would help media and researchers shed light on physician–industry relationships and explore whether manufacturers and physicians are complying with industry and professional standards. In addition, CMS and other payers could use this information to examine whether physicians' practice patterns are influenced by their relationships with industry.

Given the potential benefits of public reporting, we recommend that the Congress mandate the reporting of comprehensive information on industry relationships with physicians and other health care entities and that the Secretary post this information on a public, searchable website.

Recommendation 5-1

The Congress should require all manufacturers and distributors of drugs, biologicals, medical devices, and medical supplies (and their subsidiaries) to report to the Secretary their financial relationships with:

- *physicians, physician groups, and other prescribers;*
- *pharmacies and pharmacists;*
- *health plans, pharmacy benefit managers, and their employees;*
- *hospitals and medical schools;*
- *organizations that sponsor continuing medical education;*
- *patient organizations; and*
- *professional organizations.*

COMMISSIONER VOTES:

YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0

Recommendation 5-2

The Congress should direct the Secretary to post the information submitted by manufacturers on a public website in a format that is searchable by:

- *manufacturer;*
- *recipient's name, location, and specialty (if applicable);*
- *type of payment;*
- *name of the related drug or device (if applicable); and*
- *year.*

COMMISSIONER VOTES:

YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0

The reporting system should include the following parameters:

- Manufacturers should report payments or transfers of value to a recipient if the total value of payments made to the recipient exceeds \$100 in a calendar year. This reporting threshold should be adjusted annually based on inflation.
- The following types of payments or transfers of value should be reported to the public database: gifts, food, entertainment, travel, honoraria, research, funding for education and conferences, consulting fees, investment interests, and royalties (but not discounts or rebates; product samples are addressed in Recommendation 5-3).
- Manufacturers should report the value, type, and date of each payment; the name, physician specialty (if applicable), Medicare billing number (if applicable), and business address of each recipient; and the name of the related drug, device, or supply (if applicable). Medicare billing numbers of physicians and other providers would be available only to researchers through a data use agreement with the Secretary.
- Manufacturers should be allowed to delay reporting of payments related to a clinical trial until the trial is registered on the National Institutes of Health website. Manufacturers should also be allowed to delay reporting of other payments related to the development of a product until the Food and Drug Administration approves or clears the product but no later than two years after the payment is made.
- This federal reporting law should preempt state reporting laws except those that collect information on additional types of payments or recipients.
- The Secretary should have the authority to assess civil penalties on manufacturers that fail to meet the law's requirements.
- The Secretary should monitor the impact of the law on potentially beneficial arrangements between physicians and manufacturers.

In 2005, pharmaceutical manufacturers provided free samples with a retail value of more than \$18 billion to physicians and other providers (Donohue et al. 2007). Free samples may allow patients to start treatments sooner and help physicians evaluate a drug's effectiveness before a patient purchases

the full prescription. Samples also help some patients without insurance or with coverage limitations obtain medication. There are concerns, however, that samples may lead physicians and patients to rely on more expensive drugs when cheaper medications might be equally effective. In addition, several studies have found evidence that drug samples influence physicians' prescribing decisions. More information about the distribution of samples would enable researchers to study their impact on prescribing patterns and overall drug costs. It could also help payers and health plans target their counter-detailing programs, in which they provide information on drugs to physicians through educational visits. Therefore, the Commission recommends that the Congress require pharmaceutical manufacturers to report information about drug samples and their recipients. The Secretary would make this information available for research and legitimate business purposes through data use agreements.

Recommendation 5-3

The Congress should require manufacturers and distributors of drugs to report to the Secretary the following information about drug samples:

- *each recipient's name and business address;*
- *the name, dosage, and number of units of each sample; and*
- *the date of distribution.*

The Secretary should make this information available through data use agreements.

COMMISSIONER VOTES:

YES 16 • NO 1 • NOT VOTING 0 • ABSENT 0

In addition to financial relationships with drug and device manufacturers, physicians may also have financial ties to health care facilities. There has been rapid growth in physician investment in hospitals and ambulatory surgical centers. Although physician ownership of facilities may improve access and convenience for patients, evidence suggests that physician-owned hospitals are associated with a higher volume of services within a market. Nevertheless, it is difficult for payers and researchers to obtain ownership information. The Commission recommends that the Secretary collect information on physician investment in hospitals and other health care providers and make it available in a public database, which would facilitate research on how physician ownership might influence patient referrals, quality of care, volume, and overall spending.

Recommendation 5-4

The Congress should require all hospitals and other entities that bill Medicare for services to annually report the ownership share of each physician who directly or indirectly owns an interest in the entity (excluding publicly traded corporations). The Secretary should post this information on a searchable public website.

COMMISSIONER VOTES:
YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0

Physicians have a wide variety of financial relationships with hospitals besides investment interests, yet we know very little about the prevalence of these arrangements and their impact on referral patterns, volume, quality, and cost. If information on these relationships were publicly available, payers and researchers could use it to examine these arrangements. Through the Disclosure of Financial Relationships Report, CMS plans to collect detailed data from a sample of hospitals on their ownership, investment, and compensation arrangements with physicians. We recommend that the Secretary use data from this survey to report to the Congress on the prevalence of various arrangements. This report could help guide future decisions on what types of physician–hospital relationships—in addition to ownership—should be publicly reported. The goal of hospital disclosure is to gain a better understanding of how physician–hospital relationships can affect the cost and quality of care. ■

Recommendation 5-5

The Congress should require the Secretary to submit a report, based on the Disclosure of Financial Relationships Report, on the types and prevalence of financial arrangements between hospitals and physicians.

COMMISSIONER VOTES:
YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0

Reporting physicians' financial relationships with drug and device manufacturers

With their authority to make decisions about diagnosis and treatment, physicians are the central actors in the health care delivery system. Several factors play a role in helping them determine which drug or device is best suited for a patient, such as their medical training and experience, information from peers and published literature, clinical guidelines, and ethical standards. As described in prior Commission reports, coverage and payment rules set by health plans and pharmacy benefit managers—such as formularies and tiered cost sharing—also influence which drug a patient receives (MedPAC 2005a, MedPAC 2004). In addition, manufacturers seek to affect physicians' treatment decisions through marketing and educational activities. This chapter focuses on the industry's interactions with physicians and the importance of making these financial ties more transparent.

As described in MedPAC's June 2008 report, financial relationships between physicians and pharmaceutical and device manufacturers are pervasive (MedPAC 2008a). Such interactions have led to many advances in medical research, technology, and patient care. However, they may also create conflicts between physicians' obligation to do what is best for their patients and the commercial interests of drug and device manufacturers. The line between appropriate and inappropriate interactions may not always be clear, but there is no doubt that these relationships should be transparent.

Medicare should be concerned about the potential for industry ties to influence physicians' treatment decisions because the program spent \$48.6 billion on outpatient prescription drugs under Part D in 2007, about 11 percent of total benefits paid (Boards of Trustees 2008). In 2006, Medicare spent \$10.6 billion on Part B drugs, which are primarily administered by physicians in their offices (MedPAC 2008b). Medicare also spends a significant amount on implantable medical devices, but it is difficult to estimate the precise value because the cost of a device is usually included in the payment rate for the associated surgery.

Industry and physician groups have developed voluntary guidelines to manage interactions between manufacturers and physicians, but compliance is not systematically measured and enforced, and there is evidence that some prohibited relationships continue to occur. Recently, a growing number of academic medical centers have

adopted stringent rules for interactions with the industry. In addition, several states require drug companies to report their financial relationships with physicians. Most of these laws, however, have significant weaknesses.

Comprehensive information about physicians' financial relationships with drug and device manufacturers would help payers, plans, and the general public better understand how they affect physician practice patterns and health care costs. Public reporting could also dissuade physicians from participating in arrangements that violate professional standards. Therefore, the Commission recommends that the Congress create a national database on industry relationships with physicians and other health care entities. Our support for greater transparency does not imply that all—or even most—of these financial ties are inappropriate or undermine physician–patient relationships.

Manufacturers' financial ties to physicians and other health care entities

According to a survey of physicians, state data, and legal cases, financial relationships between physicians and pharmaceutical and device manufacturers are pervasive (Campbell et al. 2007, Ross et al. 2007, U.S. Attorney 2007). A physician survey conducted in 2003 and 2004 found that more than three-quarters of physicians had received food or drug samples from drug manufacturers in the preceding year, and more than a quarter were paid for consulting, giving lectures, or enrolling patients in clinical trials (Campbell et al. 2007). In 2005, pharmaceutical companies spent nearly \$7 billion on physician detailing (visits from sales representatives to physicians) and provided free samples with a retail value of more than \$18 billion (Donohue et al. 2007).

Reports in the media and legal cases suggest that medical device manufacturers often pay physicians consulting fees and royalties to develop products, subsidize their trips to attend training and conferences, pay them to conduct postmarketing research, and sometimes offer them investment interests in their companies (Abelson 2006a, Abelson 2006b, Burton 2005, Zuckerman 2005).¹ For example, according to a recent Department of Justice investigation of four orthopedic device companies, “surgeons who had agreements with the companies were typically paid tens to hundreds of thousands of dollars per year for consulting contracts and were often lavished with trips” (U.S. Attorney 2007). Investigators estimate that these four manufacturers paid physician consultants more

than \$800 million under 6,500 consulting agreements from 2002 through 2006 (Demske 2008).

Many relationships between physicians and drug and device manufacturers have led to technological innovations and improved patient care. Physicians play an important role in the development of new drugs and devices by overseeing clinical trials, inventing products, and providing expert advice to manufacturers (Abelson 2005, Campbell 2007). According to a recent study, physicians were listed as inventors on almost 20 percent of medical device patents filed from 1990 through 1996 (Chatterji et al. 2008). Once a product is introduced, manufacturers' marketing efforts may lead to increased use of beneficial drugs (Powell 2007). In addition, device companies often provide important hands-on training to physicians in how to safely use new devices, which may involve paying physicians to conduct training programs and subsidizing their travel costs to attend programs at centralized locations (AdvaMed 2003).

However, these relationships may also influence physicians' behavior in ways that undermine their independence and objectivity. Studies have shown that physician interactions with the pharmaceutical industry are associated with greater willingness to prescribe newer, more expensive drugs and physician requests that such drugs be added to hospital formularies (Chren and Landefeld 1994, Watkins et al. 2003, Wazana 2000). Research on human behavior suggests that providing gifts, food, and other favors creates a sense of indebtedness in recipients that may influence their decisions in subtle, unconscious ways (Dana and Lowenstein 2003, Katz et al. 2003). There is evidence of this dynamic in health care. For example, in a study of physicians who went on trips sponsored by a drug company to learn about two new drugs, most of the physicians said that the subsidized travel would not affect their prescribing behavior (Orlowski and Wateska 1992). After the trips, however, use of the new drugs at their hospital increased much faster than use of the same drugs at comparable hospitals, which suggests that the physicians who received the trips may have had an unintentional bias in favor of the new drugs.

In addition to their relationships with individual physicians, manufacturers also provide significant financial support to academic medical centers (AMCs) for education and research and are a major source of funding for continuing medical education (CME) activities. According to the Association of American Medical Colleges (AAMC), "medical schools ... have become increasingly dependent on industry support of their core

educational missions," in the form of gifts, meals, and travel expenses for students and residents; distribution of free drug samples to physicians; and payments for faculty to participate in speakers' bureaus (AAMC 2008a). The AAMC has expressed concern that such support may affect the objectivity and integrity of teaching, learning, and practice, based on evidence that gifts and other favors influence the recipients' decisions (AAMC 2008a).

A literature review concluded that about one-quarter of biomedical researchers at academic institutions receive funding from the industry, and approximately two-thirds of such institutions hold equity in start-up ventures that sponsor research conducted by their faculty (Bekelman et al. 2003). Many collaborations between investigators and the industry have benefited patients by translating research discoveries into new drugs and devices, but in some cases these relationships may create conflicts of interest (AAMC 2008b).

The Commission has previously expressed concern that clinical research funded by manufacturers is not always objective and publicly available (MedPAC 2007). Research has found that industry-sponsored studies are significantly more likely to reach conclusions favorable to the sponsor than non-industry-sponsored studies (Als-Nielsen et al. 2003, Jørgensen et al. 2006). Research also suggests that bias in industry-sponsored drug trials is common and such bias often favors the sponsor's product (Bekelman et al. 2003, Heres et al. 2006, Peppercorn et al. 2007). Sources of bias include the dose of the drug studied, the exclusion of certain patients from the study population, and the statistics and research methods used. Industry sponsorship is associated with publication bias (publishing positive results more frequently than negative results) and withholding data (Bekelman et al. 2003). In a recent article, researchers found that a drug manufacturer withheld data from clinical trials showing that the drug being tested (rofecoxib) was associated with a higher risk of mortality (Psaty and Kronmal 2008).

Both pharmaceutical and medical device manufacturers sponsor CME activities for physicians and other health professionals. Industry support for CME activities accredited by the Accreditation Council for Continuing Medical Education (ACCME) quadrupled between 1998 and 2006, from \$302 million to \$1.2 billion, growing from one-third to one-half of total CME revenue (ACCME 2006). Many CME programs are organized by medical schools and physician membership organizations, but for-profit publishing and education companies account for one-third of total CME revenue for accredited events (ACCME 2006).

Several entities have developed rules and guidelines for industry sponsorship of CME activities. The Food and Drug Administration (FDA) has issued guidelines to help ensure the independence of CME programs sponsored by companies (U.S. Senate 2007). For example, the FDA advises that educational providers maintain control over program content and discuss all relevant treatments for a condition. Similarly, the Office of Inspector General (OIG) of the Department of Health and Human Services recommends that manufacturers separate their grant-making functions from their sales and marketing departments and that industry funding of CME programs not involve control over the selection of content or faculty (OIG 2003). The ACCME, which accredits CME programs for physicians, has also designed standards to maintain the independence of CME activities from commercial sponsors (ACCME 2004).² For example, accredited CME providers must ensure that industry sponsors do not influence the selection or presentation of content or the selection of teachers. In addition, CME faculty must disclose their relevant financial relationships with the industry to participants.

Despite these standards, however, an investigation by the Senate Finance Committee found that industry sponsors improperly influence some CME activities (U.S. Senate 2007). For example, one commercial sponsor was involved in selecting faculty and other activities and another sponsor influenced where and how many presentations were scheduled. More broadly, there is a concern that the growth of commercial support for CME may skew the selection of topics by CME providers, resulting in a disproportionate focus on drugs, devices, and diagnostic tests (Steinbrook 2008).

Efforts to manage physician–industry relationships

In response to heightened legal and public scrutiny of physician–industry relationships, organizations such as the American Medical Association (AMA), American College of Physicians, Pharmaceutical Research and Manufacturers of America (PhRMA), Advanced Medical Technology Association (AdvaMed), and AAMC have produced voluntary codes of ethics (AAMC 2008a, AdvaMed 2003, AMA 1998, Coyle 2002, PhRMA 2008, PhRMA 2002).³ These guidelines—described more fully in a prior Commission report—set boundaries in areas such as the provision of gifts and meals to physicians, consulting arrangements, support of medical education, and sales presentations (MedPAC 2008a). In addition, the OIG issued guidance to help drug manufacturers identify

practices that may lead to abuse and described ways to reduce the risk of violating the anti-kickback statute (OIG 2003). This statute prohibits companies from making payments to induce or reward the referral of items or services reimbursed by federal health programs.

Some observers question whether the industry and professional guidelines are sufficiently stringent and point out that compliance is not systematically measured or enforced (Blumenthal 2004, Brennan et al. 2006, Chimonas and Rothman 2005, Prescription Project 2007).⁴ There also is evidence that some interactions prohibited by voluntary codes continue to occur. For example, a physician survey conducted between November 2003 and June 2004 found that more than one-third of physicians had, in the prior year, been reimbursed by the pharmaceutical industry for costs associated with professional meetings or CME events and 7 percent had recently received tickets from manufacturers to cultural or sporting events (Campbell et al. 2007). According to the PhRMA ethical code, which became effective in July 2002, manufacturers should not pay physicians to attend CME or educational events, unless they are faculty or consultants, and should not give them tickets to sporting events (PhRMA 2002).

In response to concerns about industry ties to medical students and faculty, a group of prominent physicians and researchers proposed that AMCs adopt stricter policies to regulate potential conflicts of interest (Brennan et al. 2006). Many of this proposal’s recommendations were reflected in a report recently approved by the AAMC, which urges AMCs to:

- prohibit physicians affiliated with AMCs from accepting any gifts (regardless of value), free meals, or payments to attend meetings from manufacturers;
- restrict sales representatives’ access to physicians and students;
- centrally manage the distribution of drug samples (to reduce the influence of samples on prescribing patterns); and
- strongly discourage the participation of faculty in industry-sponsored speakers’ bureaus (AAMC 2008a).

According to a recent article, at least 25 AMCs have adopted strong conflict-of-interest policies (Rothman and Chimonas 2008). For example, Stanford University Medical Center bans industry sales representatives from patient care areas, prohibits its faculty from publishing

articles that have been ghostwritten by the industry, and no longer accepts industry funding for specific CME programs (Pizzo 2008, Stanford University School of Medicine 2006).⁵

In addition to efforts by AMCs, some physician organizations have also implemented stringent rules for physician–industry interactions. For example, the Permanente Medical Group prohibits physicians who have a financial interest in a manufacturer from being involved in purchasing decisions regarding that company’s (or a competitor company’s) products and forbids its physicians from accepting payments, gifts of any value, and travel expenses from the industry (Permanente Medical Group 2004). In addition, the Wisconsin Medical Society recently adopted a policy that physicians should not accept gifts, food, or travel reimbursement from drug or device companies (Wisconsin Medical Society 2008).

State reporting programs

In an effort to increase the transparency of physician–industry interactions, five states and Washington, DC, have enacted laws requiring drug companies to report their financial relationships with physicians (Table 5-1). These laws require that the manufacturer—not the health care provider—disclose payments. Most statutes mandate disclosure of the recipient’s name, credentials, amount of payment, form of payment (e.g., grant, donation, in-kind), and purpose of payment (e.g., honoraria, consulting, education). Most states require reporting of gifts, meals, travel expenses, and consulting fees but exclude reporting of payments for clinical trials and research. All states except Massachusetts specifically exclude reporting of free drug samples provided to physicians for patient use. The threshold for individual payments that must be reported ranges from \$25 (Vermont, Maine, and Washington, DC) to \$100 (Minnesota and West Virginia). All states require drug companies to report payments and transfers of value to health care professionals, whereas three states and Washington, DC, also mandate reporting of payments to hospitals, pharmacists, and nursing homes.

Most state reporting laws have significant weaknesses. All statutes except the Massachusetts law exclude payments from device manufacturers. The information collected under most state laws is usually not easily available to the public. Three states (Vermont, Maine, West Virginia) and Washington, DC, compile an annual report of payments in aggregate (Lurie 2007). However, only Vermont makes this report available on the Internet. Minnesota’s is the only state law implemented thus far that makes public the

names of individual physicians who receive payments, but this information is not yet available in a searchable electronic format.⁶ The Massachusetts law, which has not yet been implemented, will make all disclosed data publicly available on a searchable database. In a recent article, researchers found that Minnesota’s and Vermont’s data are not complete and are difficult to analyze because payment categories are vaguely defined (Ross et al. 2007). Because Vermont aggregates its disclosures by pharmaceutical manufacturer, researchers had to negotiate with the Vermont Attorney General and submit a Freedom of Information Act request to obtain data at the individual physician level. In addition, Vermont permits manufacturers to designate information as “trade secrets,” which are kept confidential by the state. In 2007, 72 percent of total payments were designated as trade secrets (Vermont Office of the Attorney General 2008).

Although state reporting laws have limitations, reporters and researchers have used information collected under the Minnesota law to shed light on potential conflicts of interest. Several recent articles have explored the financial relationships of physicians who serve on formulary and clinical guideline committees and prescribe expensive new drugs. For example, reporters used data from Minnesota to show that some physicians who coauthored clinical guidelines received significant funding from companies whose drugs were affected—in one case, a physician who served on panels that developed guidelines for the use of hypertension and cholesterol drugs received more than \$200,000 from a manufacturer of these drugs (Harris and Roberts 2007).⁷

Designing a national public reporting system

In this section, we consider the advantages, limitations, and costs of collecting national data on industry relationships with physicians and other health care entities. We then describe our recommendations for a public reporting law.

Advantages of a national reporting system

A national public reporting system could have a number of potential benefits, including:

- encouraging physicians to reflect on the propriety of their relationships with the industry,
- helping the media and researchers shed light on physician–industry interactions and identify potential conflicts of interest,

**TABLE
5-1**

Disclosure requirements in state reporting programs

Disclosure requirement	MN	DC	VT	ME	WV	MA
Year of legislation	1993	2001	2003	2003	2004	2008
Disclose payment amounts greater than	\$100	\$25	\$25	\$25	\$100	\$50
Provide educational programs/materials	Yes	Yes	"any gift, fee, payment, subsidy or other economic benefit provided in connection with...marketing activities"	Yes	"gifts, grants, or payments of any kind" which are "provided directly or indirectly"	"any fee, payment, subsidy, or other economic benefit"***
Provide food/entertainment/payments	N/A*	Yes		Yes		
Pay travel expenses	N/A*	Yes		Yes		
Pay honoraria/consulting fees	Yes	Yes		Yes		
Pay for clinical trials/research	Yes	No	No	No	No	
Provide free samples for patients	No	No	No	No	No	
Sponsor CME	Yes	Yes	Yes	Yes	No	
Provide drug rebates/discounts	N/A*	Yes	No	Yes	No	
Disclose payments made to	Practitioners	Health care professionals, plans, pharmacies, hospitals, nursing facilities, and clinics	Physicians, hospitals, nursing homes, pharmacists, anyone authorized to prescribe, dispense, or purchase prescription drugs	Health care professionals, plans, pharmacies, hospitals, nursing facilities, and clinics	Prescribers (physicians and other professionals)	Physicians, hospitals, nursing homes, pharmacists, plan administrators, anyone authorized to prescribe, dispense, or purchase drugs or devices
Is information publicly available?	Yes	No	Yes (aggregate payments only)	No	No	Yes (after program is implemented in 2009)

Note: N/A (not applicable), CME (continuing medical education).

*These payments are banned under Minnesota law if in excess of \$50.

**The Massachusetts law does not list specific payment categories. It is unclear which categories will be included or excluded when the program is implemented in 2009.

Source: Lurie 2007, MedPAC analysis of state laws.

- enabling payers and health plans to examine whether and to what extent industry ties influence physicians' practice patterns,
- allowing AMCs to verify the financial interests of their clinical investigators,
- enabling hospitals to check whether physicians who recommend the purchase of specific drugs and devices have financial ties to the manufacturer, and
- facilitating the refinement of ethical standards by industry and physician organizations by providing information on the prevalence of various arrangements (MedPAC 2008a).

Requiring manufacturers to publicly report the payments they make to physicians might encourage physicians to critically examine their relationships with the industry. The American College of Physicians' code of ethics recommends that physicians ask themselves what their patients and colleagues would think about an arrangement with a manufacturer and how they would feel if the relationship were disclosed through the media (Coyle 2002). The possibility that colleagues, patients, and the general public might learn about their financial relationships with the industry could give physicians an incentive to carefully consider these questions, perhaps discouraging arrangements that are not consistent with professional standards.

The media and researchers could draw on national data to investigate potential conflicts of interest related to clinical guideline committees, formulary committees, prescribing practices, and clinical trials. As discussed earlier, recent articles have used data from Minnesota's public reporting law and other sources to shed light on physician–industry interactions.

A public reporting system would enable payers, plans, and researchers to examine whether physicians' financial relationships with manufacturers affect their practice patterns (Campbell 2008). For example, do financial ties to companies influence which drugs physicians prescribe and which devices they use? Do patients treated by physicians with certain types of industry relationships have higher costs for an episode of care? CMS and researchers could link information on physician–industry relationships to Part D claims data to evaluate the impact of these interactions on prescribing practices. Some plans in Minnesota are using state information on physician–industry relationships to review physician prescribing behavior (Wyckoff 2008).

Public information on physician–industry relationships would allow AMCs to verify the financial disclosures of their clinical investigators. Institutions—such as AMCs—applying for Public Health Service grants must obtain financial disclosure statements from investigators who plan to participate in the research and must manage, reduce, or eliminate significant financial interests that could be affected by the research (42 CFR 50, subpart F). The institution must also report the existence of conflicting financial interests to the government agency that awards the grant and assure the agency that the interest has been managed, reduced, or eliminated. Institutions rely on researchers to honestly disclose their financial interests.

In some cases, however, it appears that researchers did not fully report the extent of their financial relationships with manufacturers. According to a recent article, for example, congressional investigators found that three child psychiatrists who were awarded federal research grants received several hundred thousand dollars in consulting fees from drug companies, which they failed to report to their university (Harris and Carey 2008). In another case, investigators learned that a psychiatrist who was in charge of a large federal research grant failed to report \$1.2 million in consulting fees he received from a drug manufacturer (Harris 2008). It is difficult for AMCs to identify and manage financial relationships if clinical investigators do not fully report them.

Limitations and costs of a national reporting system

It is also important to recognize the limitations and potential costs of a public reporting system:

- Information on financial relationships may be of limited use to individual patients.
- Public disclosure might discourage beneficial arrangements between physicians and industry.
- Mandatory reporting would not eliminate conflicts of interest.
- A federal reporting law would impose compliance costs on manufacturers (to report financial information) and administrative costs on the government (to implement and enforce the law).

It is unclear whether information about physicians' financial ties to drug and device manufacturers would help patients make better medical decisions because patients frequently lack medical expertise and usually trust their physicians. Thus, they are unlikely to know how their physicians' financial interest could bias their advice or whether their physicians' recommendations are appropriate (Cain et al. 2005). In addition, physician disclosure to patients may lead both parties to believe the disclosed relationship will not bias physician decision making (Brennan et al. 2006, Cain et al. 2005). However, patients may benefit if public reporting leads to more appropriate use of drugs and devices.

There are concerns that a public reporting system might discourage physicians and other providers from having legitimate research, consulting, education, and training arrangements with manufacturers that benefit patients

and pose little risk of abuse. For example, AdvaMed has warned that a reporting system that does not allow companies to explain the context of their payments to physicians could discourage physicians from participating in efforts to develop new devices (White 2008). Thus, a reporting system should allow companies to report clarifying details about payments. In addition, the Secretary should monitor the impact of a public reporting law on potentially beneficial arrangements between manufacturers and physicians, such as industry funding of clinical research, medical education, and physician training in the use of medical devices.

Some observers have noted that, although public reporting would shed light on physician–industry interactions, it would not eliminate potential conflicts of interest (Prescription Project 2007). Physicians would still be able to accept gifts, consulting fees, meals, royalties, and other payments from manufacturers. As discussed earlier, however, public disclosure could discourage physicians from accepting payments that violate professional guidelines. In addition, a public database could help payers and researchers examine the prevalence of different types of relationships and their impact on clinical decisions, which could inform future efforts to devise rules in this area.

Manufacturers would incur costs to comply with a federal reporting law. However, a comprehensive federal law that discourages states from enacting their own reporting laws may reduce companies’ overall compliance costs; it should be less costly to comply with a single reporting requirement than multiple requirements.

The government agency that would implement a potential reporting law would require resources to develop rules, collect data, maintain an electronic database, and enforce the law. According to two states with public reporting laws (Minnesota and Vermont), the cost of collecting information from the industry and posting it on a website is minimal (Lunge 2008). However, these states do not have databases that are searchable electronically, which might increase costs. We also lack data on costs incurred by states to monitor and enforce compliance with their reporting laws.

Recommendations for a public reporting system

In this section, we make two recommendations for a comprehensive federal law to require that drug and device companies publicly report their financial relationships with

physicians and other entities. The following subsections address several important design issues:

- Who should report the information?
- How comprehensive should the public reporting system be? For example, which types of manufacturers should be included? Should payments to academic medical centers and other organizations be reported?
- What should the dollar threshold be for reporting payments?
- What types of relationships (e.g., gifts, meals, consulting deals, investment interests) should be reported?
- What type of information about the payments and recipients should be disclosed?
- Should manufacturers be required to report payments related to the development of new products?
- Should a federal reporting law preempt state laws?
- How should the information be made accessible to the public?
- What implementation questions need to be addressed?

Manufacturers should report payment information

The first question is whether the manufacturers or the individuals and entities that receive payments should be required to report payment information. In most cases, such as journal articles and clinical trials, the recipients of payments are required to disclose their financial ties. Under a comprehensive reporting system, however, it is more reasonable to have manufacturers submit the information because there are many fewer manufacturers than there are physicians and other providers. Larger organizations can realize economies of scale in developing systems to track and report payment data. It should also be easier for the government to monitor compliance among a smaller number of entities. Finally, many manufacturers have gained experience tracking and reporting payments under state reporting laws.

The reporting system should apply to a broad set of manufacturers and recipients Policymakers would need to determine which types of manufacturers should be subject to a public reporting law and which recipients of industry payments should be included. Although most state reporting laws apply only to drug manufacturers,

a comprehensive federal system should also include manufacturers of biological products, medical devices, and medical supplies because these companies may also have extensive relationships with physicians. A comprehensive law should apply to small as well as large companies to achieve a level playing field. It should include subsidiaries of manufacturers to prevent companies from evading reporting requirements by setting up subsidiaries to pay physicians. The law should also apply to wholesale distributors of drugs, devices, and supplies because they may have financial ties to physicians.

Manufacturers have financial relationships with individuals and entities that deliver health care services, discover and develop new treatments, and educate patients and practitioners. To enhance the public's understanding of these financial ties, companies should be required to report the payments they make to a broad set of recipients:

- physicians, physician groups, and other prescribers (e.g., nurse practitioners and physician assistants);
- pharmacies and pharmacists;
- health plans, pharmacy benefit managers, and their employees;
- hospitals and medical schools;
- organizations that sponsor CME;
- patient organizations; and
- professional organizations.

The reporting law should include health plans, pharmacy benefit managers, and their employees because they may have financial relationships with manufacturers, such as research contracts. The law should include hospitals and medical schools because drug and device companies provide them with significant support for education and research.

Because industry funding accounts for half of total revenue for CME providers accredited by the ACCME, we recommend including grants to CME organizations. The ACCME requires CME providers to disclose their commercial support to participants, but this information is not publicly available except in a highly aggregated form (ACCME 2004). The ACCME reports total commercial support by type of CME organizer (e.g., medical schools, hospitals, physician membership organizations, publishing and education companies). However, it does not separately report funding by industry type (e.g., drug manufacturers

or device manufacturers) or by company name. A public reporting system would capture this information and enable researchers to track industry support of CME in much greater detail. For example, researchers would be able to examine the growth of CME funding by cardiac device manufacturers for events at medical schools.

Because patient and professional organizations may receive grants from drug and device companies for education, research, and fellowships, these payments should also be reported. Although at least one manufacturer has begun disclosing this information voluntarily, and other companies have pledged to do so, it is unclear whether all companies will follow suit and whether the data will be provided in a format that is easily accessible and searchable (see text box).

Many physicians and organizations have productive, beneficial relationships with manufacturers. Therefore, the Secretary should monitor the impact of a reporting law on potentially beneficial arrangements, such as industry funding of clinical research, medical education, and hands-on physician training in the use of devices.

Threshold for payments that should be reported To balance the reporting burden on companies and the number of records in a public database with the goal of collecting comprehensive information, payments should be reported when the total value of payments from a manufacturer to a recipient during a year exceeds \$100. When manufacturers calculate whether this threshold has been reached, they should include all payments or transfers of value. This reporting threshold should be adjusted annually based on inflation. Once this threshold is reached, all payments or transfers of value to the recipient should be disclosed, regardless of the amount. We do not support a per payment reporting threshold because that could lead companies to divide a single payment or gift into smaller individual payments to avoid reporting this information. A federal law that would collect data on all payments above \$100 (regardless of size) is one factor we consider in supporting preemption of state laws that collect information on the same types of payments and recipients as a federal law (see discussion below).

Types of payments that should be reported A public reporting system should collect detailed information on a wide variety of financial relationships between manufacturers and physicians as well as other entities. These relationships include gifts, food, entertainment, travel, honoraria (including speakers' fees), research, funding for medical education and conferences, consulting

Some manufacturers plan to voluntarily disclose educational grants and other payments

Some drug manufacturers have recently decided to publicly disclose their educational grants to organizations and some of their payments to physicians. Eli Lilly began voluntarily disclosing its educational grants and charitable contributions on its website in 2007 (Eli Lilly 2008). These disclosures include the name of the recipient, amount, and program title. Recipients include physician membership organizations, patient advocacy groups, academic institutions, and continuing medical education companies. Beginning in 2009, Eli Lilly also intends

to list on its website payments to physicians that exceed \$500 for speaking and consulting services and plans to eventually disclose payments for travel, entertainment, and gifts (*Kaiser Daily Health Policy Report* 2008). Merck has also announced that it will disclose speakers' fees paid to physicians (*New York Times* 2008). In addition, a dozen drug and device manufacturers intend to publicly disclose their medical education grants; some of these companies also plan to disclose payments to patient advocacy groups (Freking 2008). ■

fees, investment interests in a manufacturer, and product royalties. Many of these categories are included in at least some existing state laws (Table 5-1, p. 325). The categories of financial relationships should be clearly defined and standardized so that the information is consistently reported.

However, we exclude reporting of discounts, rebates, and free drug and device samples for patient use from Recommendation 5-1. Discount and rebate information is considered very proprietary, and public reporting of discounts and rebates would make it difficult for purchasers to negotiate price reductions. In addition, CMS collects discount and rebate data for Part B drugs on a confidential basis to calculate Medicare payment rates. We make a separate recommendation related to reporting free drug samples on p. 335.

Manufacturers should report detailed information about payments and recipients To facilitate in-depth analyses of the industry's relationships with physicians and other health care entities, manufacturers should report detailed information about payments and recipients, including:

- the value, type, and date of each payment;
- the name, business address, physician specialty (if applicable), and Medicare billing number (if applicable) of each recipient; and
- the name of the related drug, device, or supply (if the payment was related to marketing, research, or education about a specific product).

Collecting the name, address, and physician specialty of each recipient would allow users to calculate total payments received by a physician, organization, or specialty. Collecting the Medicare billing numbers—known as National Provider Identifiers (NPIs)—of recipients who participate in Medicare would permit researchers to link information on providers' financial relationships to Medicare claims data. Manufacturers can obtain NPIs and physicians' specialties through a public website. As we discuss later, the Secretary should provide NPIs only to researchers who sign a confidentiality and data use agreement.

If the payment was related to marketing, research, or education about a specific product, the company should also report the name of the product. This information would enable research on payments connected to specific drugs, devices, and supplies. This particular requirement should apply only to products that have been approved or cleared by the FDA. Companies should be allowed to report additional clarifying details about the context for a payment (e.g., to explain that it was related to training other physicians in the proper use of an implantable device).

Each payment made to each recipient should be itemized to allow for analyses of the size and frequency of individual payments. For example, it would be useful to track how frequently manufacturers provide gifts and meals to physicians and to examine whether more frequent interactions influence prescribing patterns.

To keep the database up to date, the law should require that companies report information electronically on an

annual basis. If recipients notify manufacturers of errors in the data they have submitted to the Secretary, companies should be required to investigate and correct the errors in a timely fashion.

Guidelines for reporting payments related to product development Policymakers would need to determine whether to allow companies to withhold information that they deem to be proprietary. On the one hand, companies may wish to shield details of their research, product development, education, and marketing programs from competitors. For example, public disclosure of certain payments to physicians could make it difficult for manufacturers to keep their product development efforts confidential. On the other hand, the public has a legitimate interest in learning about the industry's financial relationships with physicians. A recent analysis of the role of physicians in medical device innovation recommended that a public reporting law include physicians' financial relationships with manufacturers during the discovery stage of a product's life cycle (Chatterji et al. 2008). In addition, a policy that would allow manufacturers to withhold any information they designate as proprietary could significantly restrict the amount of data available to the public, as evidenced by the experience with the Vermont reporting law. Vermont allows manufacturers to prevent the public release of information by designating it as a "trade secret," but this policy resulted in 72 percent of payments being designated as trade secrets in 2007 (Vermont Office of the Attorney General 2008).

To balance these considerations, the Commission recommends that a reporting law allow delayed reporting of payments that are related to the development of new products. First, we support allowing manufacturers to withhold information on payments related to clinical trials until the trial is registered on a public website maintained by the National Institutes of Health (<http://clinicaltrials.gov/>). Manufacturers are legally required to register Phase II and Phase III clinical trials of drugs and devices on this website.⁸ Second, reporting of other payments related to new product development—such as paying physicians to serve as clinical advisers or licensing a product invented by a physician—could be linked to FDA approval or clearance of the product. If, however, a manufacturer makes payments related to a new product that is never approved or cleared, these payments would remain hidden from the public. Thus, there should be a time limit on how long reporting may be delayed. In other words, reporting of payments related to the development of a new product (other than for clinical trials) could be delayed until the

earlier of FDA approval or clearance or the time limit is reached. We believe a two-year time limit is reasonable.

A federal reporting law should preempt equally or less stringent state laws An important issue to address is whether a federal reporting law should preempt existing or future state reporting laws (five states and Washington, DC, currently have such laws).⁹ On the one hand, preemption would reduce the compliance costs for manufacturers because they would need to comply with only one uniform federal law rather than several state laws (AdvaMed 2008). In addition, a single source of information could reduce confusion among users. Because a federal law with a relatively low aggregate reporting threshold would collect data on most payments, there would be less need for individual state laws. On the other hand, preemption would limit state autonomy and the potential for the federal government to learn from state laws. We support preempting existing and future state laws that collect data on the same types of payments and recipients as a federal law, even if a state law has a lower aggregate reporting threshold than the federal law (we recommend a \$100 threshold for a federal law). For example, a state law that required companies to report all gifts worth \$10 or more would be preempted. If, however, a federal law excluded reporting of discounts and rebates, a state law could collect this information.

Making the data useful and easily accessible Making the data as useful as possible and easily available to the public are significant issues, given the difficulties of accessing information collected under state laws. In a recent article, for example, researchers found that data collected by Minnesota and Vermont were not complete and were difficult to analyze because payment categories are vaguely defined (Ross et al. 2007). Minnesota is currently the only state that makes public the names of individual physicians who receive payments, but this information is not in a searchable electronic format.

To further the goal of accessibility, the Secretary should post payment information on the Internet in an electronic format that is easy to search and download. The website should allow users to search for and aggregate payments by manufacturer (or distributor), recipient, physician specialty (if applicable), name of the related drug or device, geographic location of recipients, type of payment, and year. As described earlier, researchers should be able to obtain each provider's NPI through a data use agreement process. Analysts could use the NPI to link information on industry payments to a provider to

Medicare claims data. Through such a linkage, researchers could examine whether gifts, meals, consulting fees, and other payments influence the type and amount of drugs physicians prescribe and the volume of surgical procedures they perform.

Implementing a federal reporting law The Commission believes that the Congress should allow the Secretary to choose which agency should administer a public reporting law. Although the FDA could be an option to implement the law because it regulates products made by drug and device manufacturers, the agency currently faces severe resource constraints and growing demands (Subcommittee on Science and Technology 2007). Similarly, CMS could be an appropriate choice because Medicare and Medicaid are major purchasers of drugs and devices, but CMS also has funding and staffing constraints. A third option would be the OIG because it has responsibility for investigating financial relationships that may violate the anti-kickback statute. States with reporting laws delegate this responsibility to various types of agencies. In Minnesota, for example, the supervisory agency is the Board of Pharmacy, whereas the state attorney general supervises the reporting law in Vermont.

The Secretary will require resources to develop rules for a reporting system, maintain an electronic database, monitor the impact of the law on financial relationships, and enforce the statute. According to two states with public reporting laws (Minnesota and Vermont), the cost of collecting information from the industry and posting it on a website is minimal (Lunge 2008). However, these states do not have databases that are searchable electronically, which would increase costs. We also lack data on costs incurred by states to monitor and enforce compliance with their reporting laws. The Congress should provide the Secretary with adequate resources to implement a public reporting system. The Congress should also give the Secretary the authority to assess civil penalties on manufacturers that fail to meet the law's reporting requirements.

RECOMMENDATION 5-1

The Congress should require all manufacturers and distributors of drugs, biologicals, medical devices, and medical supplies (and their subsidiaries) to report to the Secretary their financial relationships with:

- **physicians, physician groups, and other prescribers;**
- **pharmacies and pharmacists;**
- **health plans, pharmacy benefit managers, and their employees;**

- **hospitals and medical schools;**
- **organizations that sponsor continuing medical education;**
- **patient organizations; and**
- **professional organizations.**

As described earlier, the public reporting law should be designed as follows:

- Manufacturers should report payments or transfers of value to a recipient if the total value of payments made to the recipient exceeds \$100 in a calendar year. This reporting threshold should be adjusted annually based on inflation.
- The following types of payments or transfers of value should be reported in a public database: gifts, food, entertainment, travel, honoraria, research, funding for education and conferences, consulting fees, investment interests, and royalties (but not discounts or rebates; product samples for patient use are addressed in Recommendation 5-3).
- Manufacturers should report the value, type, and date of each payment; the name, physician specialty, Medicare billing number, and business address of each recipient; and, if the payment is related to a specific drug, device, or supply, the product's name. Medicare billing numbers of physicians and other providers would be available only to researchers through a data use agreement with the Secretary.
- Manufacturers may choose to delay reporting of payments related to clinical trials until the trial is registered on the National Institutes of Health website. Manufacturers may also choose to delay reporting of other payments related to the development of a new product until the FDA approves or clears the product, but no later than two years after the payment is made.
- The federal reporting law should preempt existing and future state reporting laws except those that collect information on additional types of payments or recipients.
- The Secretary should have the authority to assess civil penalties on manufacturers that fail to meet the law's reporting requirements.
- The Secretary should monitor the impact of the law on potentially beneficial arrangements between physicians and manufacturers.

RATIONALE 5 - 1

The intent of a public reporting law is to improve the appropriate use of drugs and devices by increasing the transparency of the industry's financial ties to physicians and other health care entities. Greater transparency does not imply that all—or even most—of these financial ties are inappropriate or undermine physician–patient relationships. Requiring manufacturers to report information on their financial relationships with physicians and other entities could discourage arrangements that violate industry and professional guidelines. A public reporting system also would help media and researchers shed light on physician–industry interactions. Payers (including Medicare) and health plans could use this information to examine whether and to what extent industry ties influence the drugs physicians prescribe and the procedures they perform. In addition, industry and physician organizations could use public reporting to refine their ethical standards.

IMPLICATIONS 5 - 1

Spending

- There would be administrative costs for the government to implement and enforce the reporting law.
- Medicare expenditure implications are indeterminate. Although the Congressional Budget Office (CBO) was unable to estimate the impact of public reporting on Medicare spending, it believes that disclosure has the potential to reduce Medicare spending over time (CBO 2008).

Beneficiary and provider

- Although the information may be of limited direct use to beneficiaries, they would benefit indirectly if public reporting leads to more appropriate use of drugs and devices.
- Hospitals, AMCs, and health plans should benefit from a source of information on physicians' financial interests.
- Manufacturers will incur costs to comply with a reporting law; however, if a uniform federal law replaces multiple state reporting laws, manufacturers' overall compliance costs should decline.
- Physicians and other providers who receive large payments from manufacturers may receive public scrutiny.

RECOMMENDATION 5 - 2

The Congress should direct the Secretary to post the information submitted by manufacturers on a public website in a format that is searchable by:

- **manufacturer;**
- **recipient's name, location, and specialty (if applicable);**
- **type of payment;**
- **name of the related drug or device (if applicable); and**
- **year.**

RATIONALE 5 - 2

To maximize the accessibility and usability of data submitted by manufacturers, the Secretary should post payment information on the Internet in a format that is easy to search and download. The public should be able to search and aggregate the data in a variety of ways.

IMPLICATIONS 5 - 2

Spending

- There would be administrative costs for the government to establish and maintain a public database.
- Medicare expenditure implications are indeterminate. Although CBO was unable to estimate the impact of public reporting on Medicare spending, it believes that disclosure has the potential to reduce Medicare spending over time (CBO 2008).

Beneficiary and provider

- Although the information may be of limited direct use to beneficiaries, they would benefit indirectly if public reporting leads to more appropriate use of drugs and devices.
- Hospitals, AMCs, and health plans should benefit from access to information submitted by manufacturers.
- Physicians and other providers who receive large payments from manufacturers may receive public scrutiny.

Collecting data on free drug samples

The pharmaceutical industry provides free samples worth billions of dollars to providers every year; according to a recent estimate, the retail value of free samples equaled \$18.4 billion in 2005, far more than the \$6.8 billion

spent by the industry on visits from sales representatives to physicians (Donohue et al. 2007). According to a physician survey, 78 percent of physicians received samples in the last year (Campbell et al. 2007). Although samples clearly offer benefits for many patients, they may also lead physicians and patients to rely on more expensive drugs when cheaper products may be equally effective. More information about the distribution of samples would enable researchers to study their impact on prescribing patterns and overall drug costs. Such data could also help payers and health plans target their counter-detailing programs. Therefore, the Commission recommends that the Congress require manufacturers and distributors of pharmaceuticals to report information about drug samples and their recipients. The government would make this information available under data use agreements for research and legitimate business purposes.

Drug samples benefit patients but may also influence prescribing decisions

Free samples may allow patients to start treatments sooner and help physicians evaluate a drug's effectiveness before a patient purchases the full prescription (Chew et al. 2000). Samples also help some patients without insurance or with coverage limitations obtain medication. About 10 percent of uninsured patients reported receiving at least one free drug sample in 2003 (Cutrona et al. 2008).¹⁰ According to beneficiary focus groups conducted by the Commission in 2007, some beneficiaries rely on free samples when they reach the coverage gap under Medicare Part D (Hargrave et al. 2008).

On the other hand, some researchers have pointed out that free samples may increase total drug spending by leading to the use of more expensive drugs instead of cheaper generics that may be equally effective (Brennan et al. 2006, Miller et al. 2008, Piette 2005). Several studies have found evidence that drug samples influence physicians' prescribing decisions. In one study, researchers examined how the availability of free samples influenced physicians' prescribing practices in three clinical scenarios (Chew et al. 2000). Of the physicians who said that they would provide free samples to patients, between 49 percent and 95 percent (depending on the clinical scenario) reported that they would dispense a sample that differed from their preferred drug choice. Another study found that physicians who received samples of a new drug were more likely to prescribe it (Peay and Peay 1988). According to a survey of physicians, more than half believed that accepting drug samples would be likely to affect their prescribing

behavior (Gibbons et al. 1998). In another survey, one-third of obstetrician-gynecologists said that accepting samples would probably influence their prescribing decisions (Morgan et al. 2006).

Potential uses of data on drug samples

Comprehensive data on the distribution of drug samples would facilitate further research on their effects and could also help payers and plans target their counter-detailing efforts. Although the studies cited above offer evidence that free samples influence prescribing behavior, they are limited because they rely on surveys in which physicians report their acceptance of samples and their treatment decisions. An independent source of data on drug samples, combined with information from claims on prescriptions and other health care services, would enable far more detailed research on the impact of samples. Researchers could examine questions such as:

- Does the use of samples vary by practice setting (e.g., office based vs. hospital based), physician specialty, patient mix, or geographic location?
- Do practices that accept samples prescribe more expensive medication? Do they adopt newer drugs faster than other practices?
- Do the patients of practices that accept samples spend more on drugs or other health care services? Are they more likely to comply with treatment regimens? Are they more likely to reach the Part D coverage gap? Do they have better outcomes?
- How does the distribution of samples influence overall spending trends for newer versus older drugs?

Several payers and health plans use counter-detailing programs (also known as academic detailing) to provide information on drugs to physicians through educational visits by clinicians (Hoadley 2005). These programs are designed to reduce excessive use of expensive drugs by offering evidence-based information on the safety, efficacy, and costs of alternative medications. For example, a program may share evidence with physicians that a brand-name drug is no more effective than a cheaper, older alternative. Some peer-reviewed studies have found that counter-detailing efforts reduce the use of targeted drugs and reduce spending (Avorn and Soumerai 1983, Yokoyama et al. 2002). Payers and plans might be able to use information on practices' acceptance of drug samples to improve their counter-detailing efforts. For example,

they could focus counter-detailing programs on practices that are more likely to accept samples of new drugs.

Manufacturers are required to keep records of samples

Under the Prescription Drug Marketing Act of 1987, manufacturers and distributors are required to keep internal records of the drug samples distributed to practitioners and pharmacies of hospitals and other entities. To distribute samples by mail or by sales representatives (also known as detailers), companies must maintain written request forms and receipts from the practitioners who receive the samples (21 CFR 203.30–203.31). The request form must include:

- the name and address of the practitioner who requests the samples;
- the practitioner’s state license or authorization number (and, in some cases, the Drug Enforcement Administration number);
- the name, strength, and quantity of the drug samples being requested;
- the name of the manufacturer; and
- the date of the request.

If the samples are distributed to a pharmacy, the request must also contain the pharmacy’s name and address. The written receipt must include similar information about the recipient and samples. If the samples are received by a physician’s office, the records contain only the name of the practitioner who requested and signed for the delivery of samples, rather than the names of all physicians in the practice who may dispense samples to patients.¹¹ Manufacturers and distributors must retain these requests and receipts for three years and make them available to the FDA and other government agencies upon request.

Samples distributed by sales representatives are subject to an additional requirement that does not apply to samples sent by mail: Manufacturers must maintain an inventory of these samples and conduct an annual reconciliation process that documents their distribution (21 CFR 203.31). The reconciliation report must include each recipient’s name and address; the drug sample’s name, dosage, and number of units; and the date of shipment. Although the FDA and other government agencies have the right to request these records to ensure that companies are following the law, there is no requirement to report this information to the government on a regular basis (FDA 1999).

Reporting information on samples to the Secretary

Much of the data that manufacturers are currently required to collect on samples that are mailed or distributed by representatives should be reported to the Secretary, including:

- the name and address of the practitioner (or entity) who receives the samples;
- the name, dosage, and quantity of the drug samples;
- the name of the manufacturer; and
- the date of delivery.

However, to make this information more useful for research, the companies should also collect and report additional data on sample recipients. Because manufacturers collect the name and address of only the practitioner who requests and receives the samples, it will be difficult to examine the use of samples by practices. Therefore, for samples distributed to physicians, companies should also have to collect and report the name and specialty of the physician practice. To enable researchers to link data on samples to Medicare claims data, manufacturers should also collect and report the Medicare billing number of the practitioner or entity that receives the samples. We expect that this additional information on practice name, specialty, and billing number would be self-reported by the sample recipients and should not have to be verified by the manufacturers. We recognize that, even with this additional information, it will still be difficult to examine the use of samples at the physician level because we will not have data on the samples dispensed by individual physicians. Nevertheless, researchers could analyze the distribution of samples at the practice, specialty, and geographic level.

The Secretary should make the data on samples available for research and legitimate business purposes (e.g., counter-detailing) to entities that sign confidentiality and data use agreements. To foster legitimate use of such data, the process for requesting the information should not be overly restrictive.

We recognize that manufacturers would have to redesign their data collection systems to report comprehensive information on samples to the government. For example, manufacturers would have to revise their written request and receipt forms to collect additional data on sample recipients (e.g., Medicare billing numbers). In addition, companies would have to create and populate a database

on samples to submit reports to the government. To accomplish this task, manufacturers' inventories of samples distributed by sales representatives could be expanded to include samples sent by mail.

The following recommendation differs from Recommendation 5-1 because manufacturers would not be required to report the value of free samples and because data on samples would be available only for research and legitimate business purposes, rather than being posted on a public website.¹²

RECOMMENDATION 5-3

The Congress should require manufacturers and distributors of drugs to report to the Secretary the following information about drug samples:

- each recipient's name and business address;
- the name, dosage, and number of units of each sample; and
- the date of distribution.

The Secretary should make this information available through data use agreements.

RATIONALE 5-3

The pharmaceutical industry provides free drug samples worth billions of dollars to providers every year. Although samples clearly offer benefits for many patients, they may also lead physicians and patients to rely on more expensive drugs when cheaper products may be equally effective. Requiring pharmaceutical manufacturers to report information on free samples to the Secretary would enable in-depth research on the impact of samples on physicians' prescribing patterns and overall drug spending. Payers and health plans could also use the information to improve their counter-detailing programs.

IMPLICATIONS 5-3

Spending

- There would be administrative costs for the government to collect information on free samples and make it available for research and other purposes.
- Medicare expenditure implications are indeterminate.

Beneficiary and provider

- Beneficiaries may indirectly benefit from research evaluating the impact of free samples on physicians' prescribing behavior and overall drug spending.

- Although manufacturers currently collect much of this information, they will incur administrative costs to collect the additional data and report the data to the government in a standard format.

Reporting physicians' financial relationships with hospitals and other providers

Physician investment in hospitals, ambulatory surgical centers (ASCs), and other providers serving Medicare patients has grown rapidly. Although physician ownership of facilities may improve access and convenience for patients, there is evidence that the presence of physician-owned hospitals is associated with a higher volume of services in a market (MedPAC 2006, Nallamotheu et al. 2007). In addition, physician ownership of ASCs may influence referral patterns (Gabel et al. 2008). Nevertheless, it is difficult for payers and researchers to obtain information about these financial ties. Collecting information on physician investment in hospitals and other entities and making it available in a public database would enable further research on how these financial ties might influence patient referrals, quality of care, volume of services, and cost of care.

The number of physician-owned specialty hospitals more than tripled from 2002 to 2008, from 46 to roughly 175 (CMS 2008c, CMS 2006, MedPAC 2005b). While physician-owned specialty hospitals are small and represent only 4 percent of the nation's hospitals, they represent roughly 40 percent of all the hospitals formed during the last five years. The number of Medicare-certified ASCs—most of which have at least some physician ownership—grew by more than 60 percent from 2000 to 2007, from about 3,000 to almost 5,000 (ASC Coalition 2004, MGMA 2006, MedPAC 2008b).¹³ There has also been an increase in joint venture facilities owned by physicians and hospitals, such as imaging centers and cardiac catheterization labs (Berenson et al. 2006). The Commission supports certain physician-hospital arrangements, such as shared savings (also known as gainsharing), that have the potential to improve the coordination of care and control the volume and cost of services (MedPAC 2008a). However, the Commission has expressed concerns that some physician-hospital relationships may be designed to increase the volume of services without improving the quality and coordination of care (MedPAC 2008a).

Reporting physician investment information

Hospitals and other providers have to comply with CMS rules that require disclosure of physician ownership, but none of the required disclosures is comprehensive or available to the general public.

Current rules for reporting ownership information to CMS

Under federal disclosure requirements, hospitals and other entities such as ASCs, independent diagnostic testing facilities, radiation therapy centers, clinical laboratories, dialysis facilities, skilled nursing facilities, and hospices have to report certain ownership information to CMS (CMS 2008a, CMS 2008b). Entities that are structured as partnerships must identify all partners, regardless of their percentage interest, when they enroll in Medicare. In addition, entities that are structured as corporations must identify individuals who own 5 percent or more of the facility, either directly or indirectly. Many investors in physician-owned specialty hospitals have less than a 5 percent interest and therefore would not be identified. The general public does not have access to this information, which is maintained in a CMS database called the Provider Enrollment Chain Ownership System.

Disclosing ownership information to patients

CMS requires physician-owned hospitals and ASCs to disclose ownership information to Medicare patients, but this information is not available to health plans, researchers, or members of the public who are not patients at these facilities. Physician-owned hospitals must inform patients that the hospital is physician owned and provide patients with a list of physician owners upon request. In addition, hospitals with physician owners must require all physicians with staff privileges to disclose their ownership to patients when a referral is made (CMS 2008c).¹⁴ ASCs must also notify patients of physician ownership before the date of the procedure (42 CFR 416.50).¹⁵

CMS plans to collect data on physician–hospital financial relationships

CMS plans to require a sample of hospitals to report detailed data on their ownership, investment, and compensation relationships with physicians (CMS 2008c). This effort—called the Disclosure of Financial Relationships Report (DFRR)—could include up to 500 hospitals, though CMS may reduce that number to limit hospitals' administrative burden. According to CMS, the agency's statutory authority for the DFRR is based on Section 1877 of the Social Security Act (the

Stark self-referral law) (CMS 2008c).¹⁶ CMS plans to use the DFRR to identify arrangements that may not be in compliance with the physician self-referral rules and to help shape future changes to these rules. In contrast, the Commission's interest in the DFRR is not centered on enforcement of self-referral rules. We believe that information collected through the DFRR could provide insights into what types of physician–hospital relationships should be publicly disclosed. The goal of disclosure is to facilitate research on the impact of those arrangements on the cost and quality of care.

CMS has stated that information collected through the DFRR may be shared with other federal agencies (such as the OIG) and congressional committees but does not mention congressional support agencies such as the Commission (CMS 2007). In addition, CMS intends to protect individual-specific information collected under the DFRR from public disclosure, to the extent permitted by the Freedom of Information Act (CMS 2007).

Publicly reporting all physician owners of hospitals and other Medicare providers

Building on the existing requirement for hospitals and other entities to report to CMS the identity of at least some investors, we recommend that the Congress require that facilities billing Medicare annually report information on all physicians who directly or indirectly own an interest in the facility (excluding owners of publicly traded stock). An example of indirect ownership would be if a physician owns a 10 percent share of a group practice, and that group practice owns a 40 percent share of a hospital. The hospital would then report the physician's 4 percent indirect ownership share in the hospital.

An ownership interest refers to a partnership interest, stock (not publicly traded), stock options, or other form of equity ownership.¹⁷ The disclosed information should include the physician's name, specialty, Medicare billing number, business address, and ownership share. For companies with more than one class of stock (e.g., preferred and common stock), the facility should report the physician's share of each type of security.

Other than the Medicare billing number, the Secretary should post this information on a public website in a format that is searchable by facility or physician name, facility or physician location, physician specialty, and year. Medicare billing numbers would be used to link ownership interests in different entities to a single physician and to link ownership data to claims data. However, billing

numbers would be available only to researchers who sign a confidentiality and data use agreement with CMS. Information on ownership would help plans, payers, and researchers analyze whether and to what extent physician ownership of hospitals and other entities affects referral patterns, quality of care, the volume of procedures or admissions, and total costs for an episode of care. For example, CMS and the Commission could link ownership data to Medicare claims to examine whether physician ownership influences where patients are referred.

The Secretary has authority under Section 1877 of the Social Security Act to collect information from hospitals and other entities that receive Medicare payments on their financial relationships with physicians. It is unclear, however, if CMS has the authority to disclose this information to the general public. Thus, we recommend that the Congress give the Secretary clear authority to publicly disclose information on physician investment in hospitals and other providers.

RECOMMENDATION 5-4

The Congress should require all hospitals and other entities that bill Medicare for services to annually report the ownership share of each physician who directly or indirectly owns an interest in the entity (excluding publicly traded corporations). The Secretary should post this information on a searchable public website.

RATIONALE 5-4

There has been rapid growth in physician investment in hospitals and other entities to which they may refer patients. Although physician ownership may improve access and convenience, there is evidence that physician-owned hospitals are associated with a higher volume of services in a market. Nevertheless, it is difficult for payers and researchers to obtain data on physician investment. Collecting this information and making it available in a public database would enable further research on how physician investment might influence patient referrals, volume, quality of care, and cost of care. This recommendation builds on the existing requirement for hospitals and other entities to report to CMS the identity of at least some investors.

IMPLICATIONS 5-4

Spending

- Because CMS already collects some data on physician investment in hospitals and other providers, the additional administrative costs to collect complete

investment information and post it on a website should be minimal.

- Medicare expenditure implications are indeterminate.

Beneficiary and provider

- Although the information would be of limited direct use to patients, beneficiaries may benefit indirectly from further research on how physician investment might influence patient referrals, volume, costs, and quality of care.
- Hospitals and other providers are currently required to report some information on physician investment interests, and the additional costs of reporting more complete data should be minimal.

Reporting information on additional financial relationships between physicians and hospitals

Physicians may have a wide variety of compensation relationships with hospitals besides investment interests, such as leasing arrangements involving space or equipment, employment, and payments for providing emergency on-call services. If data on these relationships were publicly available, payers and researchers could examine whether different types of financial ties influence patient referrals, resource use for an episode of care, and overall volume of services in a market. For example, researchers could evaluate whether physicians refer more patients to a hospital for imaging studies when they lease an imaging machine to that hospital. They could also evaluate whether changes in admission patterns are related to changes in physicians' financial relationships with hospitals.

It may be difficult at this point to decide what financial relationships other than ownership should be publicly reported. Therefore, before requiring more extensive public reporting, it would be prudent to wait for a review of the information that CMS will collect from hospitals through the DFRR. When conducting the DFRR, CMS should be cognizant of hospitals' administrative burden. CMS should consider limiting the types of relationships that hospitals must report. For example, it may be more important to collect data on equipment leasing arrangements and medical directorships than on market-rate leases for office space or small on-call payments. In addition, CMS should try to limit the number of hospitals sampled to a number necessary for solid statistical inference. Because different stakeholders may have different objectives in using the DFRR data, we encourage

CMS to convene a panel on how to make the data most useful to researchers and government agencies.

Our intent is to use the information from the DFRR to make better decisions on what physician–hospital relationships should be reported. The goal of public reporting is to gain a better understanding of how these relationships can affect the cost and quality of care. Some of the relationships may be beneficial and should be encouraged, while others may not support the goal of increasing the value of care beneficiaries receive.

The Commission recommends that the Secretary submit a report to the Congress on the types and prevalence of physician–hospital arrangements, using data from the DFRR. After this report is published, the Commission could review it and potentially recommend which types of relationships—in addition to ownership—should be publicly reported by all hospitals on a regular basis. The Commission’s evaluation of which arrangements hospitals should disclose would not be limited to those that will be collected in the DFRR. For example, even if CMS chooses not to collect data on physician employment, the Commission could still determine that employment information would be valuable for research and should therefore be disclosed.

RECOMMENDATION 5-5

The Congress should require the Secretary to submit a report, based on the Disclosure of Financial Relationships Report, on the types and prevalence of financial arrangements between hospitals and physicians.

RATIONALE 5-5

If information on physician–hospital relationships were publicly available, payers and researchers could use it to examine their impact on referral patterns, volume, quality, and cost. A report from the Secretary on the prevalence of various arrangements could inform future decisions on what types of relationships—in addition to ownership—should be publicly reported by all hospitals.

IMPLICATIONS 5-5

Spending

- Because CMS already plans to collect data on physician–hospital arrangements, the agency’s administrative costs to submit a report based on this information should be minimal.
- There will be no implications for Medicare expenditures.

Beneficiary and provider

- The impact on beneficiaries is indeterminate because we do not know how the report will influence future disclosures of physician–hospital relationships.
- There will be no impact on hospitals because CMS already plans to require a sample of hospitals to fill out the DFRR. ■

Endnotes

- 1 We are not aware of published studies that quantify the extent of relationships between medical device manufacturers and physicians.
- 2 In addition, the code of ethics issued by the Pharmaceutical Research and Manufacturers of America, which is discussed in the next section, addresses manufacturer funding of CME activities. Manufacturers may provide support to third-party companies that organize CME conferences, but the CME organizers must control the selection of content, faculty, venue, and materials (PhRMA 2008).
- 3 PhRMA's ethical code was adopted in 2002 and revised most recently in 2008.
- 4 PhRMA's revised ethical code recommends that companies adopt procedures to ensure adherence to the code and also seek external verification that they have such procedures in place (PhRMA 2008). However, it is difficult for the general public to evaluate whether manufacturers are complying with industry and corporate guidelines.
- 5 Although Stanford Medical School will no longer accept industry funding for specific subjects, courses, or programs, industry may provide CME funding for broadly defined fields. Such funding would be distributed by a central CME office (Pizzo 2008).
- 6 When Minnesota switches to electronic filing in fiscal year 2009, it plans to post on its website a searchable list of manufacturer payments to health care providers (Wyckoff 2008).
- 7 Additional examples of articles that use Minnesota data on physician–industry relationships are described in MedPAC's June 2008 report (MedPAC 2008a).
- 8 Phase II trials are designed to evaluate the effectiveness of a drug or device for a particular indication in patients with the disease under study and to discover common risks or side effects with short-term use. Phase III studies are expanded controlled or uncontrolled trials designed to determine the relationship between benefit and risk after preliminary evidence has suggested that the product is effective (21 CFR 312.21).
- 9 There are precedents for federal preemption of state laws relating to health care. For example, federal law preempts most state laws related to the regulation of Medicare Advantage plans. In addition, the Employee Retirement Income Security Act preempts state laws that relate to employee benefit plans (Congressional Research Service 2008).
- 10 However, this study found that wealthy and insured patients were more likely to receive free samples than poor and uninsured individuals (Cutrona et al. 2008).
- 11 The practitioner's designee (instead of the practitioner) may sign for the delivery of samples (42 CFR 203.31).
- 12 In addition, Recommendation 5-3 would not apply to free drugs provided by manufacturers under prescription assistance programs to low-income, uninsured patients because drugs provided under these programs are not considered samples.
- 13 According to an industry survey conducted by the Federated Ambulatory Surgery Association in 2004, about 90 percent of ASCs have at least some physician ownership (ASC Coalition 2004). According to a survey conducted by the Medical Group Management Association, 64 percent of ASCs are owned by physicians, and 31 percent are owned by joint ventures, which may include physician ownership (MGMA 2006).
- 14 In addition to Medicare's disclosure rules, 16 states require physicians who own a specialty hospital to disclose their ownership interest to patients they refer to that hospital (CMS 2006). Although one state (Texas) requires that physicians disclose ownership interests in a specialty hospital to the state, none of the state laws makes such information available to the general public.
- 15 A number of states require physicians who own facilities (including ASCs) to disclose their ownership interests to patients they refer to the facility, but this information is not available to the general public.
- 16 This provision requires health care entities to submit information on their financial relationships with referring physicians in the form and manner specified by the Secretary (42 CFR 411.361).
- 17 Investors who own more than a 5 percent interest in publicly traded corporations would continue to have to report their ownership interests to the Securities and Exchange Commission (SEC), as is the case under current SEC regulations. That information is available on an SEC website.

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CHAPTER

6

**Reforming Medicare's
hospice benefit**

R E C O M M E N D A T I O N S

- 6-1** The Congress should direct the Secretary to change the Medicare payment system for hospice to:
- have relatively higher payments per day at the beginning of the episode and relatively lower payments per day as the length of the episode increases,
 - include a relatively higher payment for the costs associated with patient death at the end of the episode, and
 - implement the payment system changes in 2013, with a brief transitional period.

These payment system changes should be implemented in a budget-neutral manner in the first year.

COMMISSIONER VOTES: YES 15 • NO 0 • NOT VOTING 0 • ABSENT 2

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- 6-2A** The Congress should direct the Secretary to:
- require that a hospice physician or advanced practice nurse visit the patient to determine continued eligibility prior to the 180th-day recertification and each subsequent recertification and attest that such visits took place,
 - require that certifications and recertifications include a brief narrative describing the clinical basis for the patient’s prognosis, and
 - require that all stays in excess of 180 days be medically reviewed for hospices for which stays exceeding 180 days make up 40 percent or more of their total cases.

COMMISSIONER VOTES: YES 15 • NO 0 • NOT VOTING 0 • ABSENT 2

-
- 6-2B** The Secretary should direct the Office of Inspector General to investigate:
- the prevalence of financial relationships between hospices and long-term care facilities such as nursing facilities and assisted living facilities that may represent a conflict of interest and influence admissions to hospice,
 - differences in patterns of nursing home referrals to hospice,
 - the appropriateness of enrollment practices for hospices with unusual utilization patterns (e.g., high frequency of very long stays, very short stays, or enrollment of patients discharged from other hospices), and
 - the appropriateness of hospice marketing materials and other admissions practices and potential correlations between length of stay and deficiencies in marketing or admissions practices.

COMMISSIONER VOTES: YES 15 • NO 0 • NOT VOTING 0 • ABSENT 2

-
- 6-3** The Secretary should collect additional data on hospice care and improve the quality of all data collected to facilitate the management of the hospice benefit. Additional data could be collected from claims as a condition of payment and from hospice cost reports.

COMMISSIONER VOTES: YES 15 • NO 0 • NOT VOTING 0 • ABSENT 2

Reforming Medicare's hospice benefit

Chapter summary

The Medicare hospice benefit was established in 1983 to provide beneficiaries at the end of life with an alternative to conventional medical interventions. Beneficiaries electing hospice could forgo conventional treatments and opt to receive palliative care and other benefits consistent with their personal preferences about end-of-life care. The creation of the Medicare hospice benefit was more than just a change to the Medicare benefits package, it was a statement recognizing and respecting social values and patient preferences at the end of life. Since Medicare began covering hospice care, the share of beneficiaries electing it has grown, as there has been increased recognition that hospice can appropriately care for patients with noncancer diagnoses. Hospice now provides care to beneficiaries with a wide range of terminal conditions, in contrast to the earlier years of the benefit when most hospice enrollees were cancer patients.

Along with this expansion, hospice stays have grown longer, with especially rapid growth occurring since 2000. Medicare hospice spending

In this chapter

- Overview of Medicare's hospice benefit
- Trends in hospice use
- Need for payment system reform
- Additional refinements to the hospice payment system
- Conclusions and implications for future work

also rose rapidly, more than tripling between 2000 and 2007, when it reached \$10 billion. Over this time, the number of Medicare-participating hospices increased by more than 1,000 providers, nearly all of which were for-profit entities. The Commission's analysis of the hospice benefit in our June 2008 report shows that Medicare's hospice payment system contains incentives that make very long stays in hospice profitable for the provider, which may have led to inappropriate utilization of the benefit among some hospices. We also find that the benefit lacks adequate administrative and other controls to check the incentives for long stays in hospice and that CMS lacks data vital to the effective management of the benefit.

To address these problems, we propose recommendations to reform the payment system, to ensure greater accountability within the hospice benefit, and to improve data collection and accuracy. In making these recommendations, the Commission recognizes the importance of the hospice benefit and its substantial contribution to end-of-life care for beneficiaries. The goal of these recommendations is to strengthen the hospice payment system and not discourage enrollment in hospice, while deterring program abuse. Thus, the Commission's recommendations are intended to encourage hospices to admit patients at a point in their terminal disease that provides the most benefit for the patient.

Our approach to hospice payment system reform moves away from Medicare's current flat per diem payment system to one under which per diem payments for an episode of care begin at a relatively higher rate but then decline as the length of the episode increases. Our revised system provides an additional payment at the end of the episode, reflecting hospices' higher level of effort at the time of a patient's death. These changes would be made in a budget-neutral manner in the first year. The resulting payment stream would better reflect changes in hospices' level of effort in providing care throughout the hospice episode. We believe the design of this payment system will promote hospice stays of a length consistent with hospice as an end-of-life benefit (reducing the number of extremely long stays) and will

provide incentives for hospices to more closely monitor patients' admissions and continued eligibility for hospice. Very long hospice stays work against the statutory presumption that hospice costs Medicare less than conventional end-of-life care, and they blur the distinction between hospice and long-term care. Given the response of some hospices to the incentives in the current payment system that promote long stays, coupled with the inherent challenges in predicting life expectancy and determining which patients are appropriate for hospice, we believe these changes to improve the incentives in the hospice payment system are imperative.

The model of the revised payment system we propose is conceptual and illustrates the general principles and policy direction the payment system should encompass. In the chapter, we provide two illustrations of how the payment levels could be structured, but they are not the only sets of payment levels that could be considered. If the proposed payment system were enacted by 2013, as we recommend, the final payment levels would be established by CMS through notice and comment rulemaking. CMS is expected to have additional data before 2013 that could inform establishment of the payment levels. However, given that such data are likely to include inappropriate responses by some providers to the financial incentives in the current payment system, policymakers may wish to set payment rates on a more normative basis to achieve desired policy goals.

The Congress should direct the Secretary to change the Medicare payment system for hospice to:

- *have relatively higher payments per day at the beginning of the episode and relatively lower payments per day as the length of the episode increases,*
- *include a relatively higher payment for the costs associated with patient death at the end of the episode, and*
- *implement the payment system changes in 2013, with a brief transitional period.*

These payment system changes should be implemented in a budget-neutral manner in the first year.

Recommendation 6-1

**COMMISSIONER VOTES:
YES 15 • NO 0 • NOT VOTING 0 • ABSENT 2**

The revised payment system will provide incentives for appropriate lengths of stay in hospice, but additional controls are needed to ensure an adequate

level of accountability for the hospice benefit. Greater physician engagement is needed in the process of certifying and recertifying patients' eligibility for the Medicare hospice benefit. More oversight of hospices' compliance with Medicare eligibility criteria is necessary. These measures are directed at hospices that tend to enroll very-long-stay patients and in so doing will have the effect of helping to ensure that hospice is used to provide the most appropriate care for eligible patients. In addition, potential conflicts of interest among hospices and other providers caring for hospice patients need to be addressed. For example, consistent with the payment system incentives we have identified, some hospices seem to draw a disproportionate share of patients from nursing facilities. These hospices are more likely to be for profit and have an average length of stay nearly 50 percent greater than hospices with a low share of institutionalized patients.

Recommendation 6-2A

COMMISSIONER VOTES:

YES 15 • NO 0 • NOT VOTING 0 • ABSENT 2

The Congress should direct the Secretary to:

- *require that a hospice physician or advanced practice nurse visit the patient to determine continued eligibility prior to the 180th-day recertification and each subsequent recertification and attest that such visits took place,*
- *require that certifications and recertifications include a brief narrative describing the clinical basis for the patient's prognosis, and*
- *require that all stays in excess of 180 days be medically reviewed for hospices for which stays exceeding 180 days make up 40 percent or more of their total cases.*

Recommendation 6-2B

COMMISSIONER VOTES:

YES 15 • NO 0 • NOT VOTING 0 • ABSENT 2

The Secretary should direct the Office of Inspector General to investigate:

- *the prevalence of financial relationships between hospices and long-term care facilities such as nursing facilities and assisted living facilities that may represent a conflict of interest and influence admissions to hospice,*
- *differences in patterns of nursing home referrals to hospice,*
- *the appropriateness of enrollment practices for hospices with unusual utilization patterns (e.g., high frequency of very long stays, very short stays, or enrollment of patients discharged from other hospices), and*
- *the appropriateness of hospice marketing materials and other admissions practices and potential correlations between length of stay and deficiencies in marketing or admissions practices.*

Lastly, more and better data are needed to refine the new payment system as changes are implemented. For example, hospice claims should contain information on the kind and duration of visits provided to a patient to better understand care provided and to differentiate patterns of care among different types of patients and hospices. Hospice cost reports should include additional information on revenues and should be subject to additional reviews to ensure they serve as accurate fiscal documents. Such data will enhance CMS's ability to monitor hospice utilization trends and ensure that the payment system does not create adverse financial incentives. ■

The Secretary should collect additional data on hospice care and improve the quality of all data collected to facilitate the management of the hospice benefit. Additional data could be collected from claims as a condition of payment and from hospice cost reports.

Recommendation 6-3

YES 15 • NO 0 • NOT VOTING 0 • ABSENT 2

Background

Medicare's hospice benefit was established in 1983 in part to provide Medicare beneficiaries with an alternative approach to care at the end of life consistent with the preferences of those who do not want intensive medical interventions. Hospice permits beneficiaries at the end of life to opt for a death at home, surrounded by friends and family, rather than in an institutional clinical setting. The creation of the Medicare hospice benefit was more than just a change to the Medicare benefits package, it was a statement recognizing and respecting social values and patient preferences at the end of life.

Few, if any, components of the Medicare program invoke such sensitive issues as does hospice. The election of hospice is not an easy decision for a patient to make; neither is it necessarily an easy decision for some physicians and other providers to accept. In electing hospice, the patient, his or her family, and medical practitioners must recognize and come to terms with the proximity of life's end. While hospice can offer a rich array of benefits to the dying patient, far beyond the conventional care Medicare covers, it is an election beneficiaries and their families do not take lightly. Further, hospice election may create or exacerbate ethical dilemmas among some physicians who care for patients as they near the end of life. The U.S. medical establishment has long regarded the preservation and prolongation of life as goals of modern medicine. Some physicians caring for dying patients who wish to elect hospice may not be able to reconcile the patient's hospice election with their own training to do everything possible to stave off death, especially if there are differences of opinion between the patient and his or her family about the choice of care at the end of life. Such issues are further complicated when financial incentives bear on decisions about end-of-life care.

Beyond the personal considerations, financial incentives in some cases may influence a beneficiary's (or the family's if the beneficiary is not capable of doing so because of his or her terminal condition) decision to elect hospice. We heard from an expert panel we convened in October 2008 that the rich benefits of hospice—with minimal beneficiary cost sharing—may lead some patients, families, and providers to implicitly regard hospice as a source of basic health care for failing patients who did not qualify for skilled nursing facility or home health care and did not qualify for Medicaid or otherwise could not afford other sources of long-term custodial care.

Other financial incentives have implications for providers and the Medicare program overall. Because of the sensitivities surrounding the end of life, Medicare must walk a fine line in managing the hospice benefit. Because of the ambiguity in predicting death within the six-month time frame the benefit was designed for, Medicare cannot establish criteria for admission to hospice that are too strict, lest such criteria unduly restrict access to hospice care. Yet the program has a fiduciary responsibility to manage the benefit to achieve the best possible value for the program's beneficiaries and the taxpayers who fund Medicare. Health care at the end of life is costly. For the last two decades, the 5 percent of beneficiaries who die in a given year account for roughly one-quarter of Medicare spending in that year. Currently, Medicare beneficiaries incur roughly \$40,000 or more in spending in their last year of life. The hospice benefit was established through legislation in 1983 to offer beneficiaries an alternative to conventional care at the end of life but also with the expectation that Medicare spending for hospice patients would be lower than that for conventional care. Thus, recognizing the delicate nature of providing care at such an emotionally charged phase of the patient's life, efforts to ensure appropriate use of the hospice benefit will help ensure its availability for patients now and in the future.

Overview of Medicare's hospice benefit

The Medicare hospice benefit covers palliative and support services for beneficiaries who have a life expectancy of six months or less if the terminal disease with which they have been diagnosed follows its normal course. The hospice benefit provides for a rich array of medical and support services to patients and their families (MedPAC 2008). To access these services, beneficiaries must elect the Medicare hospice benefit; in so doing, they agree to forgo Medicare coverage for curative treatment for the terminal illness. The attending physician, the medical director, or the physician designee and an interdisciplinary group must establish and maintain a written plan of care for each hospice enrollee. That plan must assess the patient's needs, identify services to be provided (including management of discomfort and symptom relief), and describe the scope and frequency of services needed to meet the patient's and family's needs.

Beneficiaries elect hospice for defined benefit periods. Two physicians, the patient's attending physician (if any)

**TABLE
6-1**

Growth in hospice use suggests beneficiary access to care is growing

Category	2000		2007		Percent change, 2000-2007	Average annual percent change, 2000-2007	Percent of Medicare hospice patients served, 2006
	Number	Percent of total	Number	Percent of total			
Type of hospice							
All	2,319	100%	3,261	100%	41%	5%	100%
For profit	750	32	1,641	50	119	12	41
Freestanding	548	24	1,395	43	155	14	35
Provider based	202	9	246	8	22	3	6
Nonprofit	1,228	53	1,208	37	-2	0	54
Freestanding	498	21	520	16	4	1	31
Provider based	730	31	688	21	-6	-1	23
Freestanding	1,136	49	2,063	63	82	9	69
Provider based	1,183	51	1,198	37	1	0	31
Rural	875	38	1,128	35	29	4	14
Urban	1,444	62	2,133	65	48	6	86
Number of hospice patients	513,000		1,000,000		95	10	
Medicare hospice spending (in billions)	\$2.9		\$10.1		248	20	

Note: The data on for-profit and nonprofit hospices do not sum to the all hospice total because the total also includes hospices with government or other ownership.

Source: MedPAC analysis of data from hospice claims, cost reports, and provider of service file from CMS, and CMS Providing Data Quickly query, <https://pdq.cms.hhs.gov>, accessed January 6, 2009.

and a hospice physician, are required to initially certify that the patient’s prognosis is terminal (i.e., the patient has a life expectancy of six months or less if the disease runs its normal course) for the patient to be eligible to elect hospice. The first hospice benefit period is 90 days. If the patient’s terminal illness continues to engender the likelihood of death within six months, the patient can be recertified for another 90 days. After the second 90-day period, the patient can be recertified for an unlimited number of 60-day periods, as long as he or she continues to have a life expectancy of 6 months or less. Beneficiaries can switch from one hospice to another once during a hospice election period and can disenroll from hospice at any time. After the initial certification, recertifications of hospice eligibility are solely within the purview of the hospice medical director and do not require certification of the patient’s original physician.

When the Congress established the Medicare hospice benefit, there was a strong expectation that, in addition to providing patients with an option for care consistent with

their personal preferences, hospice would result in lower costs to the Medicare program than conventional medical interventions at the end of life. The Congress put two limits on Medicare payments to hospices to ensure that would be the case. The first limit was on the percentage of Medicare payments a hospice could receive for inpatient care; no more than 20 percent of a hospice’s days could be paid at an inpatient service rate. The second limit was an aggregate per beneficiary limit on overall payments; this limit has come to be known as the “hospice cap.”

The Medicare payment rates and the hospice cap are updated annually. The Medicare payment rates for hospices are updated by the inpatient hospital market basket. The hospice cap is updated by the medical care expenditure category of the consumer price index for all urban consumers. (More detailed information on the hospice payment system is available at http://www.medpac.gov/documents/MedPAC_Payment_Basics_08_hospice.pdf.)

Trends in hospice use

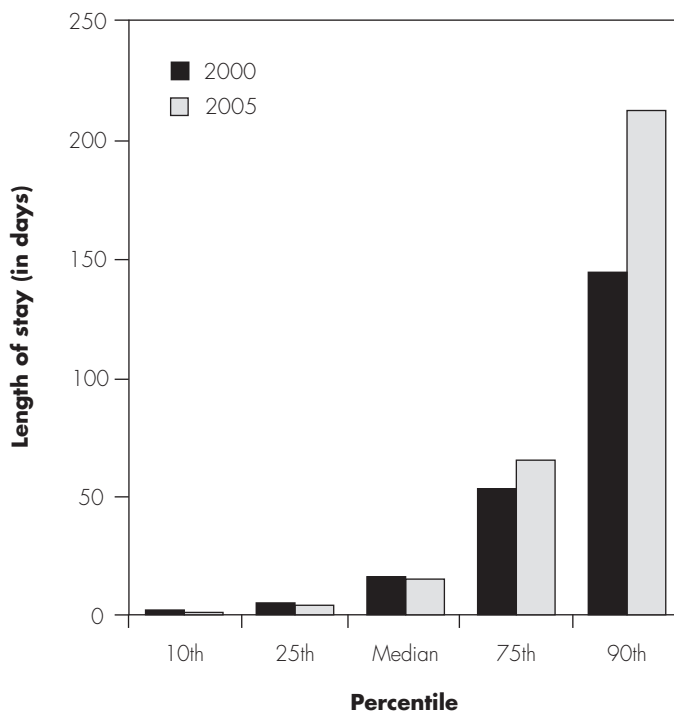
Use of the hospice benefit increased slowly for its first 10 years. Early in the benefit's history, most beneficiaries who elected hospice had terminal diagnoses of cancer. Since 2000, however, utilization has increased dramatically. By 2005, nearly 40 percent of the Medicare-decedent population had elected hospice, suggesting that many more beneficiaries have access to hospice than was the case at the outset of the benefit. In 2007, about 1,000,000 beneficiaries were enrolled in hospice, more than double the number who took advantage of the benefit a decade earlier. Between 2000 and 2007, Medicare spending for hospice more than tripled, from \$2.9 billion to just over \$10 billion (Table 6-1).

The number of Medicare-participating hospices has also grown rapidly in recent years; between 2000 and 2007, the number grew from just over 2,300 to more than 3,200, or by about 5 percent per year. Nearly all this growth was in for-profit hospices, which grew nearly 12 percent annually over this period, while the number of nonprofit hospices remained flat. Some of the growth in the number of hospices was in response to the increasing demand for hospice services (resulting from recognition that hospice services are appropriate for noncancer patients). However, a large part may also have been due to financial incentives in Medicare's hospice payment system, under which long stays are more profitable than short stays. Between 2000 and 2005, a pronounced increase occurred in hospice average length of stay, and long hospice stays got longer (Figure 6-1). At the same time, the median hospice stay was virtually unchanged throughout this period, remaining at just over two weeks. While the increase in very long hospice stays is a concern, so too is the persistence of very short hospice stays. With very short hospice stays, the patient does not fully benefit from all that hospice has to offer. In many cases, it may be desirable for these very-short-stay hospice patients to be admitted to hospice earlier in the progression of their terminal disease to enable them to receive the most benefit from hospice.

The Commission's analysis found several distinct patterns underlying the broader spending and utilization trends identified (MedPAC 2008). These patterns included a pronounced shift in patients' terminal diagnoses, the profitability of longer stays, and gaps in accountability for appropriate benefit use. We also noted that additional data were needed on hospices' costs and provision of services

FIGURE 6-1

Long hospice stays got longer from 2000 to 2005, while short stays were virtually unchanged



Note: Data are for decedent beneficiaries in both fee-for-service Medicare and Medicare Advantage.

Source: MedPAC analysis of 2007 100 percent Medicare Beneficiary Database file from CMS.

to assess what Medicare's spending for hospice care was buying.

With respect to patient diagnosis, we found that patients with neurological, cardiac, or nonspecific terminal diagnoses made up a growing share of the Medicare hospice patient population, in contrast to the early years of the benefit when almost all hospice patients had been diagnosed with cancer. Noncancer patients made up only 24 percent of the Medicare hospice population in 1992 (Hogan 2001) but represented 66 percent of patients in 2006. Noncancer patients tended to have longer stays in hospice and partially accounted for the steady increase in average hospice length of stay since 2000 (Table 6-2, p. 356).

However, change in patient mix does not explain all the change in length of stay that we see over this period. For example, hospices that exceed Medicare's limit on aggregate per beneficiary payments (the hospice cap—discussed later) have a mix of patients more skewed

**TABLE
6-2**

Mean length of hospice stay varies by disease category, 2006

Disease category	Mean length of stay (in days)	Percent of cases with length of stay greater than 180 days
Alzheimer's and other cerebrotdegenerative diseases	88	31.1%
Nervous system diseases except Alzheimer's	86	28.2
Dementia	78	26.2
Organic psychoses	77	25.4
Chronic airway obstruction, not otherwise specified	73	23.9
Unspecific symptoms/signs	72	21.3
Debility, not otherwise specified	70	20.8
Heart failure	66	20.3
Circulatory diseases except heart failure	57	18.7
Other cancer	47	8.9
Lung cancer	45	7.7
Other	43	12.6
Respiratory	41	12.0
Digestive diseases	38	8.7
Genitourinary diseases	25	4.7
All	59	16.8

Note: Mean length of stay reflects calculation based on subset of claims for which length of stay could be determined.

Source: MedPAC analysis of Medicare hospice 100 percent standard analytical file from CMS.

toward conditions likely to engender longer stays in hospice. However, these hospices (which have the highest average length of stay of any hospice group) have longer stays for all diagnoses than hospices that do not exceed the cap, suggesting that factors other than patient mix influence length of stay.

One explanation for the increasing length of stay is that Medicare's payment system rewards hospices that admit (and retain) patients likely to have long stays, with profitability increasing almost linearly with the average length of stay (Figure 6-2). Conversely, hospices with the shortest average lengths of stay have negative margins, consistent with anecdotal reports we have heard that very short hospice stays are generally unprofitable. While the

trends in admissions we observed in part reflect a natural progression of the hospice population becoming more representative of the mortality profile for the Medicare population overall, we believe these payment system incentives may improperly influence hospice length of stay for some providers.

Along with length of stay, the number of hospices exceeding Medicare's payment limit increased as well. We estimate that the number of hospices exceeding the cap (\$20,585.39 per beneficiary for the cap year ending October 31, 2006) increased by a third from 220 in 2005 to 293 in 2006.¹ Hospices that exceeded the Medicare payment cap tended to be smaller than those that remained below the cap, were more likely to be for profit, were newer, and were often located in regions with a high degree of hospice market saturation. Total Medicare hospice payments exceeding the cap increased between 2005 and 2006, from \$166 million to \$213 million (of a Medicare spending base of \$9.2 billion), or roughly 2.3 percent of total Medicare hospice payments. Among hospices that exceeded the cap, the average payments per hospice subject to recovery fell by 4 percent between 2005 and 2006. Because the number of hospice users has increased steadily, the growing cap liability does not appear to have created access problems for Medicare beneficiaries. New hospices continue to enter the program at a steady rate, with more than 240 new hospices certified to participate in Medicare in 2007.

To help put the findings of our analytic work into context, we convened a hospice expert panel in October 2008. The panel reflected a broad range of hospice interests, including hospice medical directors, administrators, and nurses. Membership included representatives of for-profit and nonprofit providers from various geographic regions of the country. A medical director of one of CMS's claims processing contractors responsible for the hospice benefit also participated. The panel provided input in several areas: short and long hospice stays, the hospice medical director's role in certifying (and recertifying) patients, and the role of local coverage determinations (LCDs) in guiding hospices on identifying patients eligible for the Medicare hospice benefit. The panel's comments provided invaluable context for our quantitative analyses and helped focus attention on areas of specific interest to the Commission.

With respect to accountability, our analytic work and input from our expert panel—as well as more recent discussions with individual hospices, hospice associations, and patient

advocacy groups—suggested the need for additional oversight of the hospice benefit. Nearly all groups we met with described “bad actors” operating within the hospice benefit, who—either by intent or by uninformed disregard of the applicable rules—were using the benefit in a way inconsistent with statutory intent and regulatory constraints. The groups, however, did not quantify the prevalence of such behavior.

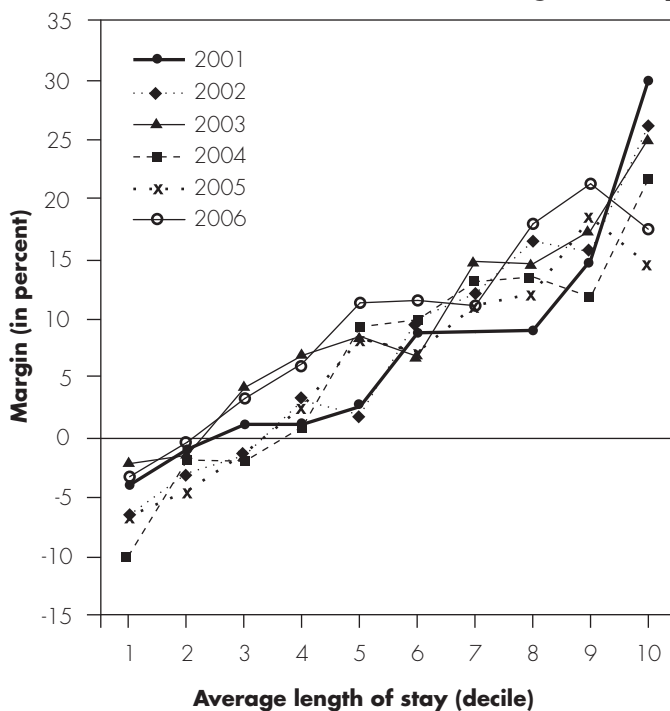
We determined that oversight is warranted to prevent some hospices from acting on the financial incentives in the payment system. We heard that some hospices engage in misleading marketing and admissions practices (e.g., “trolling” for patients in nursing homes or using marketing materials that did not mention the need for a terminal illness to qualify for hospice). Similarly, our expert panel and others described situations in which some hospices do not discharge patients whose conditions improve while under hospice care to the point that they are no longer clinically eligible. At the extreme, these practices may be motivated by financial considerations. For example, certifying parties may seek to advance the financial interests of the hospice that employs them or through financial relationships among providers involved in care of the end-of-life patient, such as retainers paid to nursing home medical directors to serve as hospice referral sources. Because of the correlation between longer stays and profitability, we concluded that greater accountability was needed from hospice providers—in particular hospice medical directors—to ensure appropriate hospice admissions and recertifications.

Alternatively, some of the utilization patterns we observed suggested a lack of training or experience in identifying patients appropriate for admission to hospice. This problem may have been particularly acute among new hospices, as Medicare’s conditions of participation for hospices are generally regarded as easy to meet. The utilization patterns also may have reflected variation in how the hospice coverage guidelines of Medicare’s claims processing contractors are interpreted and put into effect among individual hospices. Lastly, these patterns also may have reflected variation in hospice medical directors’ or hospice physicians’ involvement in the hospice patients’ care. Physicians responsible for certifying and recertifying a patient’s eligibility for hospice may inappropriately delegate much of this responsibility to other parties.

Lastly, we found that Medicare-participating hospices submit relatively little information to CMS about the services they furnish to their patients, making it difficult

FIGURE 6-2

Hospice profitability generally increases as a function of length of stay



Note: Data are for freestanding facilities.

Source: MedPAC analysis of Medicare hospice cost reports, 100 percent hospice claims standard analytical file, and Medicare Provider of Services data from CMS.

for policymakers to ascertain what spending for hospice care is buying. Until very recently, hospice claims indicated only the number of days of each type of care for which a beneficiary was enrolled. CMS has recently begun collecting information about certain hospice visits on claims, but more information is needed. In addition, hospice cost reports lack essential information—for example, most hospice cost reports do not collect information on hospice revenues. Having data on hospice revenues on the cost reports would allow policymakers to more readily assess hospices’ financial performance under Medicare and overall.

Need for payment system reform

The Commission explored alternatives that would encourage hospices to admit patients at the point in their terminal disease that provides the most benefit for the

patient. Our findings suggest that Medicare's payment system for hospice needs to be significantly revised so that hospice care for Medicare beneficiaries who elect the benefit is appropriate. The current payment system does not help Medicare effectively meet this goal.

In considering potential changes to the hospice payment system, the Commission recognizes the importance of the hospice benefit and its substantial contribution to end-of-life care for beneficiaries. The goal of payment system reform is to strengthen the hospice payment system and not discourage enrollment in hospice, while deterring program abuse. Thus, the Commission intends that such reforms provide incentives to encourage hospices to admit patients at the point in their terminal disease that provides the most benefit for the patient.

Incentives in current system favor longer stays

Medicare's hospice payment system favors patients with longer stays. Under the current per diem system, the level of payment to the hospice for routine home care, which makes up more than 90 percent of Medicare's payments to hospices, is constant throughout the episode.² The constancy of the per diem payment over the course of an episode, however, is misaligned with a hospice's costs during the episode. That is, a hospice's costs typically follow a U-shaped curve, with higher costs at the beginning and end of an episode. This cost curve reflects hospices' higher service intensity at the time of the patient's admission and the time surrounding the patient's death. When hospice stays are very short, hospices may operate unprofitably because they have little opportunity to recoup their beginning- and end-of-episode costs, given the short intervening period of relatively lower costs. This dynamic presents a policy problem: Patients who have short stays in hospice generally do not have time to benefit from the range of care that hospice provides. Very short hospice stays may also reflect referral to hospice only after significant Medicare expenditures on extensive acute interventions, or after a patient's Medicare-covered days in a skilled nursing facility have been exhausted.

By contrast, patients with longer hospice stays typically have fewer resource needs. Long-stay hospice patients may receive fewer visits per week than short-stay patients and require a somewhat lower skill mix. These lower needs could occur because some patients are admitted early in the course of their terminal disease, before they demonstrate a need for the array of services hospice offers. It is also possible that a given patient's condition may

not follow a predictable trajectory. Given that the current payment system does not require hospices to visit a patient each day to receive a per diem payment, some hospices can admit patients who require very little hospice care, while generating the same level of revenues as a patient who needs more care. As a result, a strong correlation exists between length of hospice stay and profitability. This correlation may partly explain the entry of new for-profit hospices in Medicare to the near exclusion of other types of hospices and growth in the number of patients with longer stays. The concern is that some new hospice providers, which are predominantly for profit, may be pursuing a business model based on maximizing length of stay, and thus profitability.

Many members of the expert panel we convened in October 2008 agreed that some hospices may respond aggressively to these financial incentives, developing marketing materials aimed at inducing patients likely to have long stays to elect hospice and limiting (or even prohibiting) physicians from visiting patients as part of the recertification process to determine continued eligibility for the benefit. In terms of very short hospice stays, the panel pointed to larger health care system issues related to caring for terminal patients (e.g., reluctance among physicians, patients, and their families to recognize a terminal situation and the financial incentives of acute care providers to continue treating a terminal patient) as more significant factors in explaining short hospice stays. However, the panelists suggested that payment also played a role (reinforcing the perception that these stays are generally unprofitable).³ We have concluded that payment system changes could help create incentives for hospices to admit patients at a more appropriate point in the course of their illness and reduce incentives for very long stays.

Recommended payment system revision

Several options exist for revising the payment system to reduce or eliminate the long-stay incentive. For example, payments could be made on a per visit basis, requiring hospices to provide a service on site as a condition of payment. Such an approach might ensure transparency in the provision of care from the payer's perspective, but it would not directly address hospice length of stay. Alternatively, hospices could receive a single prospective payment for an entire episode of care and could be obligated to provide hospice care for the duration of the episode, regardless of the patient's longevity in the benefit. Such an approach would remove the adverse financial consequences associated with short stays under the

current payment system. However, given the uncertainty associated with predicting life expectancy, it is unclear whether providers would be in a position to undertake the financial risk associated with a per episode payment. Therefore, we recommend payment system changes that retain the per diem payment structure of the current system but provide incentives for hospices to be more proactive in admitting short-stay patients earlier in the course of their terminal condition, while discouraging very long stays—in other words, encouraging hospices to admit patients at the point in their terminal illness that provides the most benefit to the patient.

Intensity-adjusted payment throughout episode, with end-of-episode payment to reflect higher intensity at the time of the patient's death

Under the alternative we recommend, Medicare could adjust payments to reflect changing resource intensity through the course of the episode. For example, hospices would receive a relatively higher per diem payment for the first 30 days of an episode and receive progressively lower per diem payments for subsequent 30-day periods. To reflect hospices' higher level of effort surrounding a patient's death, the payment system could incorporate an additional payment at the end of the episode.⁴ The hospice would receive the end-of-episode payment only if the patient died, not if he or she transferred to another hospice or revoked election of the benefit. These payment changes would be budget neutral.

Given the U-shaped cost curve of hospice episodes, we believe this approach would better fit the way hospice care is provided under typical circumstances. Medicare has a precedent for such an approach in the prospective payment system for inpatient psychiatric facilities (IPFs).⁵ When we analyzed the visit intensity of short and long hospice stays using data from a large national proprietary hospice chain, we found that, as length of stay increased, the number of visits per week declined, and the skill mix of the hospice staff providing those visits also declined (MedPAC 2008). As a result, the intensity-adjusted payment approach, with a payment to reflect the higher intensity of hospices' efforts at the time of the patient's death, may be appropriate for hospice as well.

In modeling the intensity-adjusted payment system, we chose two sets of payment weights to illustrate how changing the magnitude of the intensity adjustment affects providers. (Note: These payment weights are intended to be illustrative; CMS would determine a final set of weights.) Under each approach, a per diem base payment

amount for home care is multiplied by a relative weight to calculate the per diem payment rate. These sets of weights are illustrated in Figure 6-3 (p. 360).⁶

There are several key assumptions in our model worth noting. First, we continue to reimburse hospices for routine home care on a per diem basis. We also assume that continuous home care (currently reimbursed at an hourly rate) would be paid under the same per diem intensity-adjusted payment system as routine home care, while general inpatient care and inpatient respite care would continue to be reimbursed as they are under the current payment system (based on their own flat per diem rates). If the intensity-adjusted payment system were implemented, there may be reasons to consider the interaction between the intensity adjustment and the continuous home care level of care.

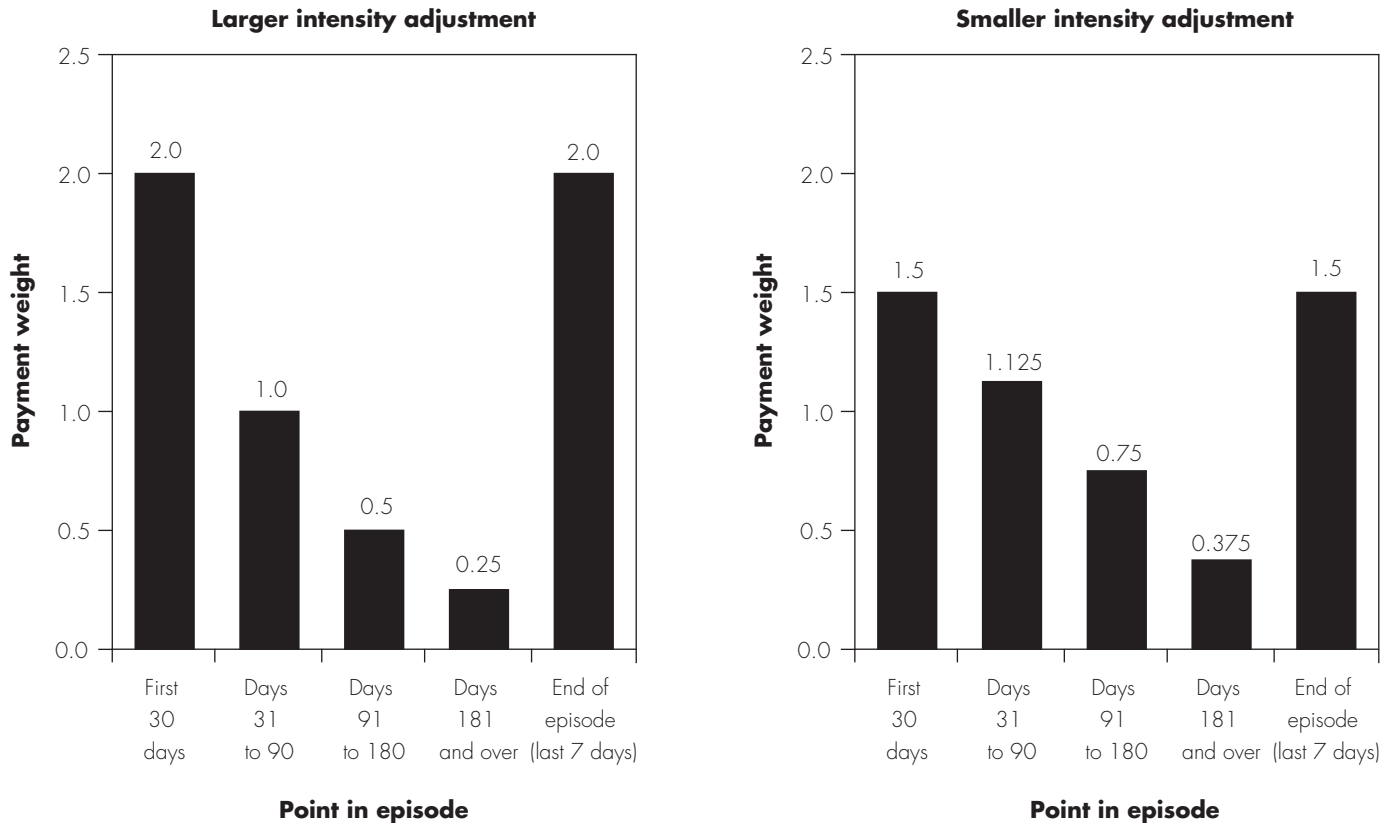
In contrast to the current system, payments for home care under the intensity-adjusted payment system are higher at the beginning and end of an episode, with declining payments in the intervening days. The per diem rate for the end-of-episode payment—which in our illustration reflects seven days of care—would be set at a level equal to the payment rate for the initial 30 days of the episode—the highest payment rate in the new system. To avoid inappropriately duplicating payments, we configured our illustrative model so that the end-of-episode payment would not be made if the patient died during the first 30 days. The per diem base payment rate under either set of weights would be established so that aggregate payments under the new payment system would be budget neutral to aggregate payments under the existing system. Under the new system, payments would be redistributed as a function of length of stay; payments for what are currently very long stays would decrease, and payments for short stays would increase.

Illustrative effects of intensity-adjusted payment approach

Our preliminary analysis suggests that, under either set of illustrative payment weights, the intensity-adjusted approach would redistribute Medicare hospice payments among hospices in a manner consistent with reducing the incentives for long hospice stays. Aggregate payments to the 20 percent of hospices with the smallest share of stays exceeding 180 days would increase by between 16.6 percent and 24.1 percent, while aggregate payments to the 20 percent of hospices with the greatest share of stays exceeding 180 days would decrease by between 6.6 percent and 10.8 percent, depending on which set

FIGURE 6-3

Illustrative alternative sets of intensity-adjusted payment weights used in modeling hospice payment system



Note: Payment weights are not applicable to inpatient care. To avoid inappropriately duplicating payments, an end-of-episode payment would not be made if the patient died during the first 30 days.

of payment weights is used (Table 6-3). Aggregate payments to for-profit hospices would decline by between 3.2 percent and 5.0 percent, and aggregate payments to freestanding facilities would go down by between 2.3 percent and 3.2 percent. These shifts are driven by the new system’s impact as a function of length of stay; however, both freestanding and for-profit hospices tend to have patients who incur longer hospice stays than provider-based and nonprofit hospices. Conversely, nonprofit hospices, provider-based hospices, and rural hospices—which traditionally have had negative margins—would see an increase in their payments on average, enough to push their aggregate Medicare margins into positive territory. Nonprofit hospices would see an increase in their aggregate payments between 2.5 percent and 4.1 percent, while provider-based hospices would see an increase in aggregate payments between 7.8 percent and 10.9 percent.

Rural hospices would see their aggregate payments increase by between 2.2 percent and 2.8 percent.

The payment system changes would have differential impacts on payments to hospices within each of these groups, with these differences primarily driven by length of stay. Table 6-4 (p. 362) shows the proportion of hospices that would experience payment changes of various magnitudes (payments increase by more than 2 percent, payments change by less than 2 percent, and payments decrease by more than 2 percent) under the set of weights with the larger intensity adjustment.

Overall, about 58 percent of hospices would see their payments increase by more than 2 percent, 34 percent would see them decrease by more than 2 percent, and 8 percent would see a change in payment of less than 2

percent. Nearly all hospices (97 percent) whose share of stays exceeding 180 days is in the lowest quintile would see their Medicare payments increase by more than 2 percent under the new system. The percentage of hospices seeing payment increases would decline in each successive quintile, while the proportion of hospices experiencing payment decreases would go up as the share of stays exceeding 180 days increased. In the highest quintile, 78 percent of hospices would see payment declines of 2 percent or more. But even within the quintile with the highest share of stays exceeding 180 days, at least 13 percent of hospices would see increases in their payments relative to the current system. This phenomenon reflects the fact that it is not only the percentage of stays that exceed 180 days that determines the impacts but also the percentage of total patient days of care that exceed the 180-day threshold. Within each of the standard provider categories for which we assess impacts (e.g., profit status, whether the entity is provider based or freestanding, geography), some hospices would see their payments increase under the new system, and some would experience reduced payments. These impacts reflect the mix of hospices by length of stay within each provider category.

Since the revised payment system reduces payments to hospices whose patients incur very long stays, we anticipate that the revised payment system would reduce the number of hospices exceeding the cap. Under the two sets of weights we modeled, the number of hospices exceeding the cap decreased by 26 percent under the smaller intensity adjustment and by 45 percent under the larger adjustment.

The redistributive effects of the new payment system on Medicare hospice payments will likely trigger behavioral responses among hospices, which could have implications for Medicare beneficiaries and the program. The extent to which the implications of the new payment system affect hospices (and their patients) depends largely on the hospices' lengths of stay.

For example, hospices will need to be more judicious in timing admission for patients with terminal diseases that typically have long stays in hospice (e.g., congestive heart failure or degenerative neurological conditions). Hospices that once relied on diagnosis alone when accepting a referral may now implement greater controls, such as following Medicare guidelines more closely or following admissions criteria developed by some hospices that better identify patients entering the last six months of life. As a result, long-stay patients will likely see shorter stays in

**TABLE
6-3**

Effects of new hospice payment system vary as a function of length of stay

Category of hospice	Percent change in payments	
	Larger intensity adjustment	Smaller intensity adjustment
Share of stays over 180 days		
Lowest quintile	24.1%	16.6%
Second quintile	10.3	7.0
Third quintile	0.8	0.6
Fourth quintile	-9.6	-7.1
Highest quintile	-10.8	-6.6
Freestanding	-3.2	-2.3
Provider based	10.9	7.8
For profit	-5.0	-3.2
Nonprofit	4.1	2.5
Urban	-0.4	-0.3
Rural	2.8	2.2

Note: Model includes impacts of an end-of-episode payment for patients who die while covered by hospice. Analyses exclude inpatient care and cap overpayments.

Source: MedPAC estimates based on hospice claims and cost report data from CMS for 2006.

hospice than have occurred recently. However, we would not expect the revised payment system to result in reduced access for these patients, given that payments would continue as long as the patient was enrolled. Instead, it is the timing of the admission that is likely to change.

The payment policy change described here would also likely affect hospices that focus on admitting patients who commonly have long hospice stays. We have found that hospices that exceed Medicare's hospice payment limit—by virtue of having among the longest average length of stay among all hospices—tend to be newer hospices and often emerge in markets where there is already a strong hospice provider presence. These hospices may have focused on admitting patients with a long length of stay either as a business model (given the profitability of long-stay patients) or because existing providers had established relationships with referral sources in a market that ensured a balanced mix of short- and long-stay patients, leaving patients with more uncertain prognoses

**TABLE
6-4**

Impacts of new payment system with larger intensity adjustment vary within each hospice type

Percent of hospices whose payments:

Category of hospice	Decline by more than 2 percent	Decline by less than 2 percent or increase by less than 2 percent	Increase by more than 2 percent
All	34%	8%	58%
Share of stays over 180 days			
Lowest quintile	1	2	97
Second quintile	6	5	89
Third quintile	24	12	64
Fourth quintile	59	13	28
Highest quintile	78	9	13
Freestanding	45	9	46
Provider based	14	6	79
For profit	50	9	41
Nonprofit	20	7	73
Urban	37	9	55
Rural	28	7	65

Note: Model includes impacts of an end-of-life payment for patients who die while covered by hospice. Analyses exclude inpatient care and cap overpayments.

Source: MedPAC estimates based on hospice claims and cost report data from CMS for 2006.

for the newer providers. In either case, these hospices may have difficulty adapting to the incentives of the recommended payment system change. Some hospices that have traditionally focused on long-stay patients may wish to move to admissions practices more consistent with those for which the proposed payment system revision provides incentives. These hospices would likely incur significant costs in ensuring that their clinical staff (physician and nonphysician) were adequately trained in hospice and palliative medicine to be able to better assess the clinical signs associated with impending death on a condition-specific basis. These costs would likely erode their historically high margins by some degree. Ultimately, the pool of eligible patients in a given market may not be sufficient to preserve the existence of a large number of small hospices, given the policy's focus on providing incentives for appropriate hospice stays, and some small hospices may have to merge with larger ones to better manage costs and achieve a sufficient patient base to manage risk.

The revised payment system may also trigger behavioral responses on the part of hospices that admit patients likely to have short stays as well as provider-based hospices' parent providers that may be likely to refer such patients to hospice. Hospices that admit short-stay patients will likely see improved financial performance under the new system, as the higher payments early in the episode will better reflect the costs they incur. It is possible that these increased payments would provide an additional incentive to hospices that admit short-stay patients to take greater efforts to obtain referrals for these patients earlier in the progression of their terminal disease. These incentives may have an additional effect in the case of provider-based entities. Currently, hospital-based and other provider-based hospices tend to have negative Medicare hospice margins. Under the new system, parent providers may not face such losses by referring a patient to hospice as they would under the current payment system.

By the same token, these incentives may also, at the margins, induce some providers to refer, and hospices to

admit, more patients for whom hospice would offer little benefit given the shortness of their remaining life. Such a change would be contrary to the intent of the policy—the goal is to increase the length of what are currently three-day stays, not to increase the number of three-day stays. The proposed payment system could provide additional incentives for more hospitals, nursing homes, and home health agencies to open Medicare-participating hospices. Medicare would need to closely monitor changes in the hospice user and provider populations to ensure that there was no dramatic increase in the number of extremely short-stay patients or in the number of provider-based hospices with very short average lengths of stay—phenomena that may suggest an inappropriate behavioral response to the incentives in the proposed payment system.

Benefits of the intensity-adjusted approach

The intensity-adjusted approach could help mitigate the adverse financial incentives associated with both long and short hospice stays. Payments under a revised system would provide a clear signal to hospices to pay close attention to the clinical indicators of their long-stay patients. Payments could be structured in such a way that a minimum “maintenance” payment could be made for legitimately long-stay patients. Further, the reduction in payments over time could be structured to better ensure that hospice expenditures do not exceed costs incurred by comparable patients who elected conventional care, helping to ensure consistency with one of the original legislative underpinnings of the Medicare hospice benefit. Additionally, this approach (with a final payment made at the time of the patient’s death) would provide appropriate financial compensation to hospices for increased service intensity near the time of death, consistent with the objective of the hospice benefit as an end-of-life benefit, rather than to those hospices that pursue a business model suggestive of long-term custodial care.

Despite the factors arrayed against admitting short-stay patients to hospice sooner—ranging from the financial incentives of acute care providers to use aggressive end-of-life treatments to patient, family, and physician outlooks on the acceptance of impending death—our proposed changes in the payment system may have a positive impact on the admission of short-stay patients. By establishing higher payments for the early stages of the hospice episode, Medicare would at least remove a disincentive for hospices to admit patients likely to have short stays. The payment system would encourage appropriately, but not excessively, long stays.

Implementation issues

Implementing such a revised payment system would require many policy decisions, including at what level to set the payment weights, the length of time each payment weight would be in effect, the duration of the period covered by the end-of-episode payment, and how to treat patients who are discharged from and readmitted to hospice. In an ideal world, such decisions would be fully informed by empirical data—for example, efficient providers’ costs of providing hospice care for patients at a given point in the hospice stay. Such data are limited in the case of Medicare’s hospice benefit. However, the data that exist, as well as data forthcoming from CMS’s claims data collection effort, reflect current practices, including inappropriate responses to payment system incentives by some providers. Therefore, policymakers may wish to set payment rates on a more normative basis to achieve desired policy goals.

To illustrate the potential impacts of an intensity-adjusted payment system, we had to make assumptions about the various implementation parameters. The assumptions were informed by data on aggregate Medicare payments for hospice, current law payments for episodes of given lengths, the current level of the Medicare hospice cap, and our understanding of hospices’ relative levels of effort in the course of episodes informed by discussions with hospices and hospice associations and by our analysis of data from a large national for-profit hospice chain. We fine-tuned our assumptions through an iterative evaluation of their effects on desired policy outcomes—most importantly, changing the current payment system’s incentives for long stays in hospice to incentives that provide more balanced incentives that do not favor one set of patients over another.

Nevertheless, our assumptions, and the resulting illustrative models, comprise only two examples of many possible configurations. Other options are possible within the general construct of the intensity-adjusted payment approach, coupled with an end-of-life adjustment. Other options may be informed by the data CMS has recently begun to collect on hospice claims, notably visits provided to hospice patients during the course of their episodes of care. Other data—such as visit duration data—may also be useful as well as information on the degree to which total episode costs are correlated with the intensity of visits. Some of this information has not yet been produced for CMS to use in managing the benefit. Nevertheless, the revisions to the payment system articulated here represent a substantial improvement over the existing system.

Because the intent of the proposed changes in the payment system is to improve the financial incentives in the payment system so that they do not favor very long stays over relatively shorter stays, the Commission has recommended implementing the changes in a budget-neutral manner in the first year (2013). Nevertheless, the Commission is concerned that aggregate Medicare spending on hospice may be excessive given that it includes spending for very-long-stay patients who in some cases may not have been appropriately admitted. In the upcoming years, before 2013, the Commission intends to examine the effect of very long stays on aggregate Medicare hospice spending and may consider additional adjustments to the payment system through the annual update, the hospice cap, or medical review if warranted.

RECOMMENDATION 6-1

The Congress should direct the Secretary to change the Medicare payment system for hospice to:

- **have relatively higher payments per day at the beginning of the episode and relatively lower payments per day as the length of the episode increases,**
- **include a relatively higher payment for the costs associated with patient death at the end of the episode, and**
- **implement the payment system changes in 2013, with a brief transitional period.**

These payment system changes should be implemented in a budget-neutral manner in the first year.

RATIONALE 6-1

Medicare’s current payment system contains incentives that may induce some providers to admit patients likely to have inappropriately long stays in hospice. Such stays are inconsistent with the statutory underpinning that hospice is an end-of-life benefit (rather than a long-term care benefit) and may result in hospice expenditures that exceed the costs of conventional end-of-life care. Further, long stays in hospice undermine the presumption that hospice should result in lower Medicare spending at the end of life. The payment system change we propose would reduce the incentives for excessively long stays in hospice while still affording hospices some financial protection against costs incurred in caring for unavoidably long stays.

Spending

- The proposed change in the payment system would have no direct spending implications in the first year, because it is implemented in a budget-neutral manner. The change will result in relatively small reductions in Medicare spending in the longer term—less than \$100 million over five years.

Beneficiary and provider

- The proposed payment system is expected to result in some beneficiaries being admitted to hospice at a more appropriate time in their terminal illness. Given the policy goal of reducing the number of very long stays in hospice, the proposed system will likely result in some patients having shorter stays due to being admitted at a more appropriate point in their terminal illness or, in some cases, due to discharge from hospice if some patients are determined no longer to be eligible because of improved prognosis. At the same time, patients with conditions that typically generate short hospice stays under the current system may have the opportunity for longer stays, thus obtaining greater benefit from enrollment in hospice at the end of life. In the aggregate, we believe this proposal will not affect beneficiaries’ ability to access hospice care, but they will do so at a more appropriate time in their terminal disease.
- Impacts on hospice providers will largely vary as a function of length of stay. Aggregate payments will be the same as they would have been under the current system. However, hospices that now have very long average lengths of stay (including those with a high percentage of patients who do not die in a given year) will see their payments reduced and will have to reorganize their business models. Hospices with shorter average lengths of stay will receive increases in payments.

Additional refinements to the hospice payment system

While the reform of Medicare’s payment system for hospice is a necessary step, additional administrative improvements must also be made. CMS needs to instill greater accountability among the physicians and hospices that provide care under the benefit, and it needs better data to manage the benefit effectively.

Accountability

Compliance with Medicare's rules, regulations, and guidelines pertaining to the hospice benefit varies among hospices. Some of this variance may reflect a lack of training, a deliberate response to financial incentives, or a desire to provide care to patients with unmet chronic care needs who may not meet the hospice eligibility criteria. Complex financial relationships—especially between hospices and nursing homes or other long-term care providers—may inappropriately affect admissions to hospice and recertification of hospice patients, giving at least the appearance of financial impropriety. At the same time, CMS does not have sufficient resources to devote to enforcing and auditing hospice compliance with program rules. In addition, there may be a role for the Medicare program to educate beneficiaries and their families on the purpose of the hospice benefit as an end-of-life benefit rather than a chronic care benefit.

More safeguards needed in recertifying long-stay patients

The increasing proportion of hospice patients with a length of stay exceeding 180 days and the variation in length of stay across hospices raise concern that there is insufficient accountability and enforcement related to enrollment and recertification of Medicare hospice patients. The expert panel of hospice providers we convened in October 2008 agreed that many providers comply with the Medicare hospice eligibility criteria but also indicated that some hospices do not, highlighting the need for greater accountability and enforcement. Some panelists pointed to questionable practices among certain providers in their communities that suggested possible program abuse.

Current Medicare policy on certifications and recertifications Expert panel members noted that hospices vary in the degree of rigor they apply to the recertification process. Under Medicare's current policy, to admit a beneficiary to hospice, the beneficiary's attending physician (if any) and a hospice physician must certify that the beneficiary is terminally ill. After the initial 90-day certification, continued enrollment in hospice requires recertification of the patient's eligibility for hospice only by the hospice medical director or a physician member of the hospice's interdisciplinary group. CMS policy requires that the written certifications and recertifications indicate that the patient's life expectancy is six months or less if the disease runs its normal course and include the physician's signature (42 CFR §418.22). Information that would

support the terminal prognosis is required to be included in the medical record.⁷

LCDs developed by Medicare claims processing contractors provide general and condition-specific clinical criteria for determining whether a patient qualifies for the hospice benefit based on a life expectancy of six months or less.⁸ If a patient does not meet the LCD criteria, the patient may be considered eligible if a physician certifies that the patient's life expectancy is six months or less based on clinical aspects of the patient's condition not addressed by the LCD.

Hospice expert panel generally agreed more accountability and enforcement needed Panelists generally agreed that some hospices enroll and recertify beneficiaries who do not meet the terminal illness criteria—because of limited medical director engagement in the recertification process, inadequate charting of the patient's condition (or in some cases even deliberate mischarting), or a lack of staff training.

The panel further discussed a tension that can exist between the hospice physician and the hospice's nonphysician staff that may lead to inappropriate recertification in some circumstances. One panelist noted the contradiction that hospice is explicitly organized as a "nonmedical" benefit, although hospice eligibility requires a medical decision. Panelists indicated that in some cases physicians deferred too much authority for making determinations of continued eligibility to nonphysician staff. These staff members, by virtue of their day-to-day contact with patients, may develop emotional attachments that color their view (and sometimes their charting) of a patient's continued eligibility for the benefit.

One panelist suggested that some hospices are "sloppy" in their admissions, admitting patients too early in their terminal disease progression or retaining them when they are no longer eligible. Panelists attributed this practice in part to a lack of appropriate education and experience in palliative medicine among some hospice physicians. The panelists suggested a number of ways to improve the level of clinical competence in this area, such as having hospice as a rotation site for residency programs, requiring hospice medical directors to obtain continuing medical education in hospice and palliative care medicine, and requiring a formal certification program for hospice medical directors.

At the extreme, several panelists provided anecdotal information about questionable practices by some hospices, suggesting possible program abuse. They

described instances in which some hospices: prohibited their physicians from visiting patients to determine continued eligibility; failed to discharge patients with improved prognoses; enrolled patients who were not admitted or were discharged by other hospices for failure to meet coverage criteria; disregarded eligibility requirements entirely; and aggressively marketed their service to individuals residing in nursing facilities, who were likely to have long lengths of stay. Other panelists described conflicts of interest in the referral relationships between some nursing homes and hospices. For example, common ownership—or a shared medical director—or other financial relationships provided financial incentives for inappropriate hospice referrals and enrollment. Still other instances panelists cited involved practices on the part of some hospices whose written marketing materials explicitly excluded critical clinical criteria (e.g., the six-month prognosis) in asking recipients of the materials to consider hospice as an end-of-life alternative. Other industry sources described instances of hospice staff approaching the families of nursing facility residents with neurological diseases, offering the family “extra assistance” for the patient, without mentioning the word “hospice.”

Expert panel members offered several suggestions for possible steps to increase accountability, while urging increased enforcement of existing Medicare policy concerning hospice eligibility as outlined in the LCDs:

- ***Require a physician or advanced practice nurse (APN) visit prior to the 180-day recertification.*** Several panelists supported a requirement that a hospice physician visit the patient at the time of the 180-day recertification to assess continued eligibility. A few panelists indicated that was current practice at their hospice. Some panelists expressed concern about the feasibility of such a requirement for rural hospices. However, one panelist from a rural state said it was common practice for the medical director to visit very-long-stay patients to get a clear picture of the patient’s condition. Another suggestion was made that allowing APNs to perform the visits might ameliorate the issue.⁹ For a visit requirement to be effective, physicians would need to attest that the visit took place.
- ***Increase enforcement of existing hospice eligibility criteria in LCDs.*** Panelists generally viewed the hospice eligibility criteria in the LCDs as reasonably effective in identifying patients likely to have a life expectancy of six months or less. To the extent that the

LCDs have been implicated as a potential contributor to variation in length of stay, panelists were of two minds. On the one hand, some members of the panel believed the evidence base of the LCDs for some conditions would need to be strengthened for them to be more effective in identifying terminal patients appropriate for hospice. (Several panelists asserted that when their hospices determined that eligibility requirements for a condition were insufficient to reliably result in appropriate lengths of stay, they took the initiative to add criteria to the guidelines.) While these panelists suggested that there may be potential to strengthen the criteria in the LCDs for some conditions, they did not believe the content of the LCDs was the main factor contributing to the increase in very long hospice stays. On the other hand, several panelists provided anecdotal reports of some hospices disregarding the eligibility criteria in the LCDs. They indicated that to the extent that hospices disregard the eligibility guidance, greater Medicare program oversight could appropriately reduce lengths of stay. Panelists agreed that more enforcement of existing LCDs is needed and that it should be targeted to those providers with aberrant patterns of enrollment and lengths of stay. In some cases, LCDs may need to be strengthened to effectively identify the appropriate point in a patient’s terminal illness for admission to hospice. It would be difficult, however, to develop a definitive “cookbook” approach to eligibility criteria. However, some hospices on their own initiative have developed additional guidelines on eligibility criteria to ensure that patients are appropriately admitted to and kept in hospice. Given the key role of LCDs in assisting hospices’ clinicians in determining initial and continued eligibility for hospice, it may be beneficial for CMS and its contractors to consider sponsoring a forum via which hospices and other clinicians involved in end-of-life care could share these practices.

Nonetheless, the objective of the policy outlined here should be to focus on the extreme actors in the industry. To do so, Medicare claims processing contractors could be required to review all recertifications beyond 180 days for hospices with an exceptionally large share of their cases exceeding 180 days. This action would have the effect of focusing on long stays, in hospices that tend to have long stays, and would not subject all hospices to additional review and administrative burden. Yet this heightened level of

review would engender additional costs to CMS and its contractors, and the Commission would strongly urge the Congress to ensure that adequate resources are dedicated to these efforts.

- ***Require that written certifications and recertifications include a brief narrative explanation of the clinical findings that support a life expectancy of six months or less.*** Many panelists agreed that it would be beneficial to require that certifications and recertifications include a brief narrative statement of the clinical basis for a patient's terminal prognosis. Panelists indicated that the physician certifying eligibility can reasonably be expected to synthesize in a few sentences the clinical aspects of the patient's condition that support the prognosis. Such a requirement would encourage greater physician engagement in the certification and recertification process by focusing attention on the physician's responsibility to certify the clinical rationale for the terminal prognosis supported in the patient's medical record.

Relationships between hospices and long-term care facilities need greater oversight

The election of the Medicare hospice benefit by beneficiaries residing in nursing facilities—and potentially those residing in assisted living facilities—represents a particularly delicate juncture and is a likely area for greater oversight. Medicare beneficiaries residing in nursing facilities (which can include nursing homes, intermediate care facilities, and skilled nursing facilities) make up a considerable share of those who elect hospice at the end of life, representing roughly 20 percent of the Medicare hospice population. These beneficiaries are more likely than others to have terminal diseases with a long end-of-life trajectory—such as degenerative neurological diseases or nonspecific conditions, such as adult failure to thrive or nonspecific debility. They are more likely to have physical impairments that affect their activities of daily living. In addition, many nursing home residents have degenerative neurological diseases that result in impaired mental capacity and thus may not be fully able to make choices about their health care. These patients' use of hospice warrants special attention. Providers may respond to unique payment incentives that come into play at the intersection of nursing facilities and hospices. These incentives may help explain the patterns of hospice care we have observed in recent years, most notably the increase in the length of hospice stays and the increase in hospice election by nursing home residents.

Nursing facilities have incentives to refer patients early in terminal disease progression Nursing facilities and hospices have incentives to refer and admit certain beneficiaries to hospice due to financial incentives potentially accruing to both types of providers. When a nursing facility resident enrolls in hospice, the nursing facility continues to provide room and board services (e.g., assistance with activities of daily living) to the patient, while the hospice provides core palliative services related to the patient's terminal illness.¹⁰ The nursing facility and the hospice both have responsibility for aspects of the patient's care, which may result in reduced workload for both entities. For example, when some of the resident's care is provided by the hospice—especially care provided by hospice-supplied home health aides—there may be a reduction of effort on the part of the nursing facility's staff who otherwise would provide assistance with activities of daily living. Similarly, a hospice may provide fewer home health aide visits to a nursing facility resident than it would to a patient residing in the community because of the availability of nursing facility staff to assist with activities of daily living. The hospice may also realize reduced staffing and transportation costs when serving nursing facility patients—for example, if a nurse or home health aide visits three beneficiaries in one nursing facility rather than traveling to three private homes. Under the current payment system, the hospice is paid the same amount for routine home care provided to a nursing facility resident as for routine home care provided to a beneficiary in a private home.

Incentives to refer patients to hospice may be even greater if a beneficiary is dually eligible for Medicare and Medicaid. Medicare makes payments directly to the hospice for palliative care services, and the state Medicaid agency—which had been reimbursing the nursing facility for the patient's room and board—now makes those payments to the hospice. The hospice then reimburses the nursing facility for room and board (CMS 2003). There may be the potential for additional financial incentives associated with the hospice's payment to the nursing facility because the hospice and nursing facility negotiate the level of payment for room and board and in some cases additional services the nursing facility provides on behalf of the hospice. Some of these contractual arrangements have been described in work by the Office of Inspector General (OIG 1997).

As a result of these various incentives, both nursing homes and hospices have an interest in carefully managing the nursing home patient's election of hospice to ensure the

**TABLE
6-5**

Characteristics of institutionalized and noninstitutionalized Medicare hospice beneficiaries, 2006

Beneficiary characteristics	Hospice beneficiaries	
	Institutionalized	Noninstitutionalized
Percent of all hospice beneficiaries	18.0%	82.0%
Percent eligible for Medicare and Medicaid	51.1	16.6
Average age (in years)	84.6	80.0
Percent female	72.5	54.9
Percent of all beneficiaries by diagnosis		
Ill-defined debility	12.7	6.2
Alzheimer's disease	11.8	4.1
Circulatory diseases	11.1	10.7
Dementia	10.5	2.7
Cancer (lung and other)	10.2	41.9
Unspecific symptoms/signs	9.6	4.4
Heart failure	7.2	8.1
Organic psychosis	7.2	2.3
Chronic airway obstruction, not otherwise specified	4.1	5.7
Multiple diagnoses during episode	3.6	2.7
Genitourinary diseases	3.6	3.4
Nervous system	3.4	2.2
Respiratory diseases	2.1	2.8
Other	2.0	1.8
Digestive diseases	0.9	1.7

Note: Institutionalized beneficiaries are defined as beneficiaries who spent at least 90 days in a nursing facility leading up to or during their hospice stay.

Source: MedPAC analysis of hospice claims and beneficiary data from CMS for 2006.

most benefit to each provider. Both providers have an interest in identifying patients likely to have long stays in hospice and enrolling them in the Medicare hospice benefit.

Characteristics of institutionalized Medicare hospice beneficiaries and hospices that serve them To examine the nature of institutionalized beneficiaries and the hospices that serve them, we compared these beneficiaries with their noninstitutionalized counterparts.¹¹ Institutionalized Medicare hospice beneficiaries differed from those residing in other settings (e.g., their homes in the community) in terms of their Medicaid status, age, gender, and diagnosis. Of the 730,000 Medicare hospice beneficiaries included in this analysis in

2006, approximately 18 percent were institutionalized in a nursing facility (Table 6-5). As expected, many institutionalized hospice users (just above 50 percent) were eligible for both Medicaid and Medicare. In contrast, 17 percent of hospice beneficiaries residing in other settings were dually eligible. Lastly, institutionalized beneficiaries were much more likely than beneficiaries living in the community to have the terminal diagnoses that typically incur long hospice stays, such as Alzheimer's disease, dementia, and ill-defined debility. Patients with these diagnoses are likely to have longer stays, at least in part because their terminal status is more subject to judgment.

Institutionalized beneficiaries typically had longer hospice stays than other beneficiaries. On average, in 2005,

**TABLE
6-6**

Characteristics of hospice providers with few institutionalized beneficiaries compared to providers with a large proportion of institutionalized beneficiaries

	Low-institutionalized hospices (less than 15 percent institutionalized)	High-institutionalized hospices (more than 40 percent institutionalized)
Number of providers serving institutionalized beneficiaries, 2006	1,329	290
Average percent of institutionalized beneficiaries as proportion of caseload, 2006	9%	52%
Percent, 2006:		
Freestanding	57	80
For profit	45	72
Urban	68	74
Average length of episode (in days), 2005	79	117
Percent of stays above 180 days, 2005	14%	24%

Note: Low- and high-institutionalized hospices are defined based on the percent of Medicare patients institutionalized—less than 15 percent and more than 40 percent, respectively. Patients are considered institutionalized if they spent at least 90 days in a nursing facility leading up to or during their hospice stay.

Source: MedPAC analysis of hospice claims and beneficiary data from CMS for 2004, 2005, and 2006.

institutionalized Medicare hospice beneficiaries spent over 50 percent more days enrolled in hospice than hospice beneficiaries residing in other settings. For most terminal diagnoses, institutionalized beneficiaries also had longer episodes than their counterparts residing in other settings with the same diagnoses. Institutionalized beneficiaries with cancer had hospice lengths of stay twice as long as did beneficiaries with cancer in other settings. In addition, hospice episodes extending longer than the six-month presumptive eligibility period were more common among the institutionalized beneficiaries in our analysis. In 2005, 21 percent of institutionalized beneficiaries were enrolled in hospice for longer than six months. In contrast, 12 percent of beneficiaries residing in other settings were enrolled in hospice for longer than six months.

Hospices with a high proportion of institutionalized patients are more likely to be freestanding and for profit We examined two groups of providers serving institutionalized beneficiaries: those that did not rely on the institutionalized beneficiary population as a large proportion of their caseload (“low-institutionalized hospices,” representing roughly 50 percent of all hospices) and those that did (“high-institutionalized hospices,” making up 10 percent of hospices). Institutionalized beneficiaries accounted for no more than 15 percent of low-institutionalized hospices’ caseloads (Table 6-6). By contrast, high-institutionalized hospices focused 40

percent or more of their business on institutionalized beneficiaries.

Fifty-seven percent of low-institutionalized hospices were freestanding, fewer than half (45 percent) were for profit, and just over two-thirds were in urban locations. In 2005, the low-institutionalized hospices had an average episode length of 79 days, with 14 percent of the beneficiaries they served having episodes longer than 180 days.

High-institutionalized hospices, on the other hand, were more likely to be freestanding (80 percent), for profit (72 percent), and urban (74 percent). In addition, in 2005, high-institutionalized providers had episode lengths that averaged about 50 percent longer (117 days) and had almost twice the proportion of stays exceeding 180 days (24 percent).

In addition to the differences in length of stay between high-institutionalized hospices and low-institutionalized hospices, there may also be differences in the services these two types of hospices provide to beneficiaries. It is possible that hospices may furnish fewer visits or different types of visits to institutionalized patients because long-term care facility staff may be available to provide assistance. In the future, as more data become available, the Commission intends to evaluate how the hospice services provided to institutionalized beneficiaries

compare with services provided to beneficiaries living in the community and to assess whether a separate payment policy for patients in long-term care facilities is warranted.

Role of nursing facility medical director in hospice referrals A nursing facility medical director often serves as a resident's primary care physician and consequently becomes responsible for determining the patient's ongoing health status. Therefore, the medical director is typically in a position to arrange for hospice services when the beneficiary's health status is determined to be terminal. In that capacity, the nursing facility medical director would be one of the cosigners of the certification of eligibility for hospice. Under such arrangements, the nursing facility medical director can potentially be a source of real or perceived financial conflict of interest with respect to hospice referrals.

RECOMMENDATION 6-2A

The Congress should direct the Secretary to:

- **require that a hospice physician or advanced practice nurse visit the patient to determine continued eligibility prior to the 180th-day recertification and each subsequent recertification and attest that such visits took place,**
- **require that certifications and recertifications include a brief narrative describing the clinical basis for the patient's prognosis, and**
- **require that all stays in excess of 180 days be medically reviewed for hospices for which stays exceeding 180 days make up 40 percent or more of their total cases.**

RATIONALE 6-2A

Hospice length of stay varies considerably, with strong evidence that the payment system contains incentives for long stays, which are counter to the fiscal interest of the Medicare program. Some of the variation may also reflect a lack of physician oversight of hospice patients' care. Requiring documented physician oversight may ensure better adherence to Medicare's hospice coverage criteria that guide determinations of eligibility for the benefit. Additional medical review of long stays by CMS or its contractors—such as fiscal intermediaries, Medicare administrative contractors, program integrity contractors, and recovery audit contractors—at hospices with an exceptionally large share of their stays exceeding 180 days may identify providers with inappropriate admissions or recertification practices.

Spending

- While hospices would bear the cost of additional recertification visits, if billable services are provided during the course of a recertification visit, Medicare spending would increase slightly. However, the review of claims from hospices with very long lengths of stay should have the effect of delaying hospice admission for patients of questionable eligibility, which would lower the rate of future growth in Medicare spending for hospice. In net, this recommendation is estimated to lower Medicare spending for hospice by less than \$10 million in the first year and by less than \$100 million over five years. CMS or its contractors would incur administrative costs in reviewing long hospice stays; we estimate that the protocols we have specified here would entail roughly 10,000 medical reviews (out of more than 850,000 hospice stays). Further, some of the aberrant patterns of admissions may stem from inadequate oversight of hospices by CMS and its contractors. CMS should be given the resources necessary to enforce existing policies applicable to the hospice benefit and any new policies adopted on the basis of recommendations here. In addition, some components of our accountability recommendations will likely be more effective if they are supported by increased frequency and regularity of CMS provider survey efforts. Hospice is unique among Medicare-participating providers in its lack of a statutorily prescribed schedule of compliance surveys. It is essential that the Congress provide CMS with the resources necessary to carry out this effort.

Beneficiary and provider

- We do not expect this recommendation to result in a decline in access to hospice care for Medicare beneficiaries; rather, we expect it to result in some beneficiaries being admitted to hospice at a more appropriate time during their terminal illness. We believe the more rigorous documentation requirements and oversight procedures we are recommending will make hospices more attuned to the implications of admitting patients to hospice earlier than their disease trajectory would warrant. Therefore, we expect that some patients who currently engender very long stays in hospice would have shorter stays in the future, as they are admitted at a more appropriate stage in their terminal disease. These requirements should help ensure that only

genuinely eligible patients are enrolled in the benefit and thus help minimize the disruption of hospice patients' end-of-life care.

- Impacts on hospice providers will vary almost completely as a function of length of stay. Additional Medicare contractor review of long-stay cases (greater than 180 days) among hospices whose 180-day stays make up 40 percent or more of their total caseload will not pose an additional burden on hospices whose percentage of such patients is below this threshold. Hospices exceeding this threshold will incur additional costs. We estimate that in 2006, 187 hospices (about 6 percent of all hospices accounting for about 3 percent of hospice stays in that year) had 40 percent or more of their stays exceeding 180 days. On average, 47 percent of these hospices' stays exceeded 180 days, compared with less than 17 percent for all hospices. Also, hospices that currently do not require (or even prohibit) a physician to visit the patient prior to the 180-day recertification and each subsequent recertification will incur costs in providing these visits. Hospices with a greater share of long-stay patients will face greater compliance costs from such a requirement. Some hospices (both long- and short-stay) may incur additional costs from including a brief narrative statement of the clinical basis for the prognosis in certifications and recertifications, but the cost of such activities is expected to be modest.

RECOMMENDATION 6-2B

The Secretary should direct the Office of Inspector General to investigate:

- **the prevalence of financial relationships between hospices and long-term care facilities such as nursing facilities and assisted living facilities that may represent a conflict of interest and influence admissions to hospice,**
- **differences in patterns of nursing home referrals to hospice,**
- **the appropriateness of enrollment practices for hospices with unusual utilization patterns (e.g., high frequency of very long stays, very short stays, or enrollment of patients discharged from other hospices), and**
- **the appropriateness of hospice marketing materials and other admissions practices and potential correlations between length of stay and deficiencies in marketing or admissions practices.**

RATIONALE 6-2B

Given the incentives in the hospice payment system and the explicit financial arrangements among some providers, nursing facilities and other long-term care facilities may be an attractive source of hospice referrals. A comprehensive OIG review of hospice use by nursing home patients would improve our understanding of how the benefit is used in this context and would quantify the extent to which inappropriate arrangements, such as those described by members of our expert panel and suggested by our own analysis, exist in the hospice and nursing home communities.

IMPLICATIONS 6-2B

Spending

- There are no spending implications stemming from this recommendation. It would require the OIG to expend administrative resources in conducting these reviews.

Beneficiary and provider

- No direct beneficiary implications in the short term, although there could be an indirect impact if providers respond to the OIG examining these issues by changing their enrollment practices.
- No direct impacts on providers in the aggregate, although some hospices may face administrative costs in complying with OIG reviews and requests for information. There could be an indirect impact on providers if they respond to the OIG examining these issues by changing their enrollment practices.

Data needs

Medicare-certified hospices historically have not been required to report much information when submitting claims for reimbursement by the program on behalf of Medicare hospice enrollees. In 2007, CMS issued a program memorandum requiring hospices to begin reporting certain information about the visits they provide to Medicare hospice enrollees on their claims for reimbursement. The hospice industry criticized the CMS requirement on several levels, but after some changes to the requirement, it became effective in July 2008.

Cost reports lack essential information

Hospice cost reports—a potentially valuable data source on hospices' services and costs—are not subject to rigorous

reporting requirements from CMS. Hospice cost reports are not used to adjudicate payments to hospices and do not uniformly include information necessary to determine with greater accuracy the appropriateness of payments. As a result, hospice cost reports can be subject to significant errors, limiting the utility of many hospices' cost reports for the purposes of research or program administration.

As an example of information not collected, Medicare hospice cost reports do not contain charge or payment information. Requiring Medicare payments to be reported in hospice cost reports would allow policymakers to more readily assess hospices' financial performance under Medicare.

Data on the number of days of care attributable to Medicare beneficiaries (non-dual eligibles), Medicaid beneficiaries (non-dual eligibles), and Medicare and Medicaid dual eligibles would be useful for analyzing financial relationships between hospices that receive payments under Medicare's hospice benefit and nursing homes that are the residence of dually eligible beneficiaries who elect hospice. Requiring all hospices to report days of hospice care by type of service, along with the costs and payments attributable to each type of service, would allow for a more comprehensive examination of hospice profitability and the relationship of profitability to length of stay. Requiring hospices to report information on charitable contributions and other revenues would help provide a more complete picture of hospices' financial performance.

Our work using Medicare's hospice cost reports shows that the reports' quality and content could be improved. The new information collection requirements on hospice claims affords CMS the opportunity to make key changes to hospice cost reports. For example, CMS could require hospice cost reports to uniformly include payments, along with aggregated visit information (that could be reconciled with claims data) for each of the four types of currently covered services (routine home care, continuous home care, inpatient respite care, and general inpatient care). To enhance the value of this information for research, program administration, and policy development purposes, CMS could implement stronger cost report edits and additional audit criteria.

Claims information requirements could be improved

Compared with other Medicare provider types, hospices have substantially fewer information requirements when

submitting Medicare claims for reimbursement. Under Medicare's hospice payment system, which pays for each day a beneficiary is enrolled in hospice regardless of whether the hospice provided a service on all the days reimbursed, CMS knows very little about the hospice care that it pays for. Medicare requires only that hospices report days of care at the four designated care levels (routine home care, continuous home care, inpatient respite care, and general inpatient care) on claims for reimbursement. Most hospices submit "batch bills" to Medicare, with each claim covering a 30-day period.

From the information reported on claims, CMS can determine the number of beneficiaries enrolled in hospice, their admitting diagnoses, and the number of covered days for each type of care—but virtually nothing else. CMS has no information on how many visits hospices provided to their enrollees, the type of practitioner providing the visit (e.g., registered nurse, home health aide, social worker), length and content of visit, outcomes, or other basic information. Such data are essential to evaluating the care being provided. Moreover, given that hospice has changed dramatically in several ways in recent years, it is urgent to get basic information on the nature of the benefit.

As of July 2008, CMS began requiring hospices to report additional information on their Medicare claims (CMS 2007). This information includes hospices reporting on a weekly basis the visits provided by nurses (registered, licensed, or nurse practitioner), home health aides, social workers, and physicians (including nurse practitioners serving as the hospice patient's attending physician). We believe the visit information requirement represents a critical first step toward understanding what Medicare is paying for under the hospice benefit. CMS could go further by collecting a broader range of information on the practitioners involved in hospice care.

CMS's decision not to collect information on the length of visits during the first round of data collection justifiably raised industry concerns. In the absence of fully developed and established quality measures in the hospice setting, duration of visits may be one way to assess differences in the relative level of effort among hospices in providing services to their enrollees. We have heard anecdotally from several hospices that the length of time spent on the patient intake process (e.g., assessing medical and medication needs, developing a plan of care, and establishing communications) may be a leading indicator of hospice quality. Additionally, including length of visit on the claims would help illuminate cost differences

among hospices observed in our previous work, and this information could inform future refinements to the hospice payment system.

CMS refrained from implementing this requirement in the first round of data collection due to a desire to minimize the reporting burden on hospices. However, we note that since the home health prospective payment system was implemented in 2000, CMS has required home health agencies to report visit duration in 15-minute increments. It is likely that hospices have the capacity to report this information with little administrative difficulty, especially the home-health-based hospices that make up 20 percent of Medicare-participating hospices. The benefits of additional data (and improved quality of existing data) for the Medicare program and its beneficiaries should outweigh the cost of any additional reporting requirements, and additional visit information (both type and duration of visits) should be required of hospices as a condition of Medicare payment.

RECOMMENDATION 6-3

The Secretary should collect additional data on hospice care and improve the quality of all data collected to facilitate the management of the hospice benefit. Additional data could be collected from claims as a condition of payment and from hospice cost reports.

RATIONALE 6-3

Medicare currently collects minimal information on hospice care. It is insufficient to provide a detailed understanding of what happens during an episode of care, the resources involved, and how resource use varies among patients and among hospices. Hospices' reporting of visit information that began in 2008 is a good first step, but much more information will be needed to modernize the hospice payment system in light of changes in hospice use during the past decade.

IMPLICATIONS 6-3

Spending

- This recommendation would require CMS and its claims processing contractors to expend administrative resources in modifying claims to include additional data elements, implementing claims processing screens, developing new cost reporting standards, and developing program guidance and other instructional materials for Medicare-participating hospices.

Beneficiary and provider

- No direct beneficiary implications.
- This recommendation will have some effects on providers, which are difficult to quantify. They will have to adapt to new claims and cost-reporting requirements in the form of changes to existing information technology systems and training staff on compliance with new claims and cost-reporting requirements.

Conclusions and implications for future work

To ensure that Medicare's hospice benefit, which offers physical and emotional support for Medicare beneficiaries and their families at the end of life, is used as effectively as possible, substantial changes to the benefit should be made. The payment system should be modified to reward appropriate lengths of stay in hospice rather than excessively long stays. Along with payment system changes, Medicare should require greater accountability in the benefit, ensuring more physician involvement in end-of-life care and discouraging relationships among providers that distort hospices' provision of care. CMS will require significantly more data to make these changes and to closely monitor the evolution of the benefit.

In its June 2008 report, the Commission emphasized the urgent need for delivery system reform, given the challenges posed to Medicare by high-spending growth rates with little commensurate improvements in quality or patient care outcomes. Much of the Commission's thinking about delivery system reform was guided by the need to encourage communication among the different providers involved in a beneficiary's care and to develop payment mechanisms (e.g., bundled payments) that would make providers more conscious of the resources used to provide care to a patient throughout an episode of care. Ideally, Medicare's hospice benefit should similarly encompass these principles and is uniquely positioned to play a key role in delivery system reform given the high costs of health care at the end of life and hospices' potential to affect these costs. However, the payment system and other components of the hospice benefit are not sufficiently developed to fulfill this potential. Current patterns of utilization reflect (at least partially) inappropriate provider responses to incentives in the payment system, and available data are not sufficient to provide an understanding of the variation in levels

of hospice care for purposes of constructing bundled payments. As a result, the reforms we recommend here are essential first steps in ensuring that hospice is fully encompassed by delivery system reform.

In the future, the Commission may consider additional measures or reforms related to the hospice benefit. For example, we intend to examine the effect of very long stays on aggregate Medicare hospice spending and may consider additional adjustments to the payment system through the annual update, the hospice cap, or medical review, as warranted. We may also explore whether a separate payment policy for hospice patients in long-term care facilities is warranted when additional data become available. To further strengthen the hospice payment system, it may also be desirable to pursue quality measurement and reporting for hospices. However, as discussed in more detail in our June 2008 report, developing standardized empirical quality measures for hospice that can be used for program administration—either to compare provider performance or to adjust payments under future pay-for-performance

programs—presents unique challenges. The set of hospice characteristics that are correlated with quality is not clear-cut, and structural, process, and outcomes measures are scarce. Measures that rely on patient (or family) perceptions of care are more common, but establishing the validity of those characteristics may be difficult because of their subjective nature. CMS's new conditions of participation require hospices to engage in data-driven quality assessment and performance improvement programs. The conditions of participation provide hospices with the flexibility to select their own quality or outcomes measures, as CMS indicated that it did not believe sufficient information was available at this time to establish national quality benchmarks for hospice (CMS 2008a). Given the challenges, it may take some time before data on the quality of care, resulting from such projects or from administrative or other systematic data, will be available for purposes of comparing quality among hospice providers or to institute quality-based payment incentives in Medicare's hospice payment system. ■

Endnotes

- 1 The hospice cap increases each year by the medical expenditure category of the consumer price index for urban consumers, and the Medicare hospice payment rates increase by the inpatient hospital market basket. Because of the difference in the updates, the hospice cap has increased more than hospice payment rates in recent years. As a result, over time, hospices can provide increasingly more care before hitting the cap. Despite this fact, we have seen an increase over time in the number of hospices exceeding the cap.
- 2 Under the current payment system, most hospice care is routine home care, which is paid at a uniform flat rate throughout the episode. Three other types of hospice care are provided in some circumstances: continuous home care (which is paid an hourly rate) and general inpatient care and inpatient respite care (which are paid different per diem rates).
- 3 The panel described a number of other factors beyond Medicare's payment system that influence hospice length of stay. With respect to long-stay patients, they pointed to the difficulties in precisely predicting likely death for patients with neurological or nonspecific terminal diseases and also noted that admission to hospice can improve a terminal patient's health and well-being, extending the patient's life (the "hospice effect"). They noted other nonclinical factors in addition to payment incentives that lead to long stays, such as market saturation, ownership, and hospice staff's clinical training and qualifications—particularly pertaining to the accuracy of clinical charting and the ability to use this information objectively to assess continued eligibility for hospice. The panel provided information suggesting that nonpayment factors were a larger determinant of short stays in hospice, noting that most short stays came after intensive (and futile) end-of-life acute care interventions. Such stays may reflect payment incentives for nonhospice providers as well as the attitudes of physicians and terminal patients who are reluctant to cease curative treatment.
- 4 Additional policies would likely need to be put in place to prevent inappropriate provider responses to the new payment system and to ensure that Medicare was not overpaying for hospice care under the new system. For example, arguably the payment adjustment made to reflect hospices' higher level of effort at the time of the patient's death should not be made in the case of very-short-stay patients, given that those costs are already factored into the higher early episode payments that would be made under the new system. We have incorporated this approach in our payment model.
- 5 CMS implemented this system in January 2005, pursuant to a mandate in the Balanced Budget Refinement Act of 1999. Under this payment system, per diem payments are adjusted to reflect their position in the length of stay. In the 2009 rate year, IPFs are paid 119 percent or 131 percent of the base payment rate for the first day of the IPF stay (depending on whether the IPF has an emergency department meeting certain standards). The adjustment declines through successive days of the stay, falling to 100 percent of the base payment rate on days 9 and 10, reaching 92 percent of the base payment rate for days beyond the 21st day of an IPF stay (CMS 2008b).
- 6 Under the first set of payment weights (with the larger intensity adjustment), the weights are 2.0 for the first 30 days of hospice care, 1.0 for days 31–90, 0.5 for days 91–180, 0.25 for days 181+, and an end-of-life payment equivalent to a weight of 2.0 for the last 7 days of life. Under the second set of payment weights (with the smaller intensity adjustment), the weights are 1.5 for the first 30 days of hospice care, 1.125 for days 31–90, 0.75 for days 91–180, 0.375 for days 181+, and an end-of-life payment equivalent to a weight of 1.5 for the last 7 days of life. Under either set of weights, the end-of-episode payment would not be made if the patient died during the first 30 days in order to avoid inappropriately duplicating payments.
- 7 While it is required that the medical record include information (e.g., test results) that would support the terminal prognosis, there is not a requirement that the medical record include a statement explaining the reasons for the terminal prognosis.
- 8 Currently, there are three Medicare contractors that process hospice claims. All three have hospice LCDs, and there is some variance in these policies.
- 9 Nurse practitioners are the only type of APN defined for the Medicare hospice benefit, so references to APNs refer to nurse practitioners.
- 10 Room and board services include personal care services, assistance in activities of daily living, socializing activities, administration of medication, maintaining the cleanliness of a resident's room, and supervising and assisting in the use of durable medical equipment and prescribed therapies. Core palliative hospice services include nursing care, physician care, counseling, and medical social services related to the diagnosed terminal illness.
- 11 To identify a beneficiary population that might be most affected by this payment intersection, we identified hospice beneficiaries who had spent at least 90 days in a nursing facility leading up to or as a part of their hospice episode.

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A P P E N D I X

A

**Commissioners' voting
on recommendations**



Commissioners' voting on recommendations

In the Medicare, Medicaid and SCHIP Benefits Improvement and Protection Act of 2000, the Congress required MedPAC to call for individual Commissioner votes on each recommendation and to document the voting record in its report. The information below satisfies that mandate.

Chapter 1: Context for Medicare payment policy

No recommendations

Chapter 2: Assessing payment adequacy and updating payments in fee-for-service Medicare

Section 2A: Hospital inpatient and outpatient services

2A-1 The Congress should increase payment rates for the acute inpatient and outpatient prospective payment systems in 2010 by the projected rate of increase in the hospital market basket index, concurrent with implementation of a quality incentive payment program.

Yes: Behroozi, Bertko, Borman, Butler, Castellanos, Chernew, Crosson, Dean, Ebeler, Hackbarth, Hansen, Kane, Miller, Reischauer, Scanlon, Stuart

Absent: Milstein

2A-2 The Congress should reduce the indirect medical education adjustment in 2010 by 1 percentage point to 4.5 percent per 10 percent increment in the resident-to-bed ratio. The funds obtained by reducing the indirect medical education adjustment should be used to fund a quality incentive payment program.

Yes: Behroozi, Bertko, Borman, Butler, Castellanos, Chernew, Crosson, Dean, Ebeler, Hackbarth, Hansen, Kane, Miller, Reischauer, Scanlon, Stuart

Absent: Milstein

Section 2B: Physician services and ambulatory surgical centers

2B-1 The Congress should update payments for physician services in 2010 by 1.1 percent.

Yes: Behroozi, Bertko, Borman, Butler, Castellanos, Chernew, Crosson, Dean, Ebeler, Hackbarth, Hansen, Miller, Reischauer, Scanlon, Stuart

Absent: Kane, Milstein

2B-2 The Congress should establish a budget-neutral payment adjustment for primary care services billed under the physician fee schedule and furnished by primary-care-focused practitioners. Primary-care-focused practitioners are those whose specialty designation is defined as primary care and/or those whose pattern of claims meets a minimum threshold of furnishing primary care services. The Secretary would use rulemaking to establish criteria for determining a primary-care-focused practitioner.

Yes: Behroozi, Bertko, Butler, Chernew, Crosson, Dean, Ebeler, Hackbarth, Hansen, Kane, Miller, Reischauer, Stuart

No: Borman, Scanlon

Not voting: Castellanos

Absent: Milstein

2B-3 The Congress should direct the Secretary to increase the equipment use standard for expensive imaging machines from 25 hours to 45 hours per week. This change should redistribute relative value units from expensive imaging to other physician services.

Yes: Behroozi, Bertko, Borman, Butler, Chernew, Crosson, Dean, Ebeler, Hackbarth, Hansen, Kane, Miller, Reischauer, Stuart

Not voting: Castellanos, Scanlon

Absent: Milstein

2B-4 The Congress should increase payments for ambulatory surgical center (ASC) services in calendar year 2010 by 0.6 percent. In addition, the Congress should require ASCs to submit to the Secretary cost data and quality data that will allow for an effective evaluation of the adequacy of ASC payment rates.

Yes: Behroozi, Bertko, Borman, Butler, Castellanos, Chernew, Crosson, Dean, Ebeler, Hackbarth, Hansen, Kane, Miller, Reischauer, Scanlon, Stuart

Absent: Milstein

Section 2C: Outpatient dialysis services

The Congress should maintain current law and update the composite rate in calendar year 2010 by 1 percent.

Yes: Behroozi, Bertko, Borman, Butler, Castellanos, Chernew, Crosson, Dean, Ebeler, Hackbarth, Hansen, Kane, Reischauer, Scanlon, Stuart

No: Miller

Absent: Milstein

Section 2D: Skilled nursing facility services

The Congress should eliminate the update to payment rates for skilled nursing facility services for fiscal year 2010.

Yes: Behroozi, Bertko, Borman, Butler, Castellanos, Chernew, Crosson, Dean, Ebeler, Hackbarth, Hansen, Kane, Miller, Reischauer, Scanlon, Stuart

Absent: Milstein

Section 2E: Home health services

2E-1 The Congress should eliminate the market basket increase for 2010 and advance the planned reductions for coding adjustments in 2011 to 2010, so that payments in 2010 are reduced by 5.5 percent from 2009 levels.

Yes: Behroozi, Bertko, Borman, Butler, Castellanos, Chernew, Crosson, Dean, Ebeler, Hackbarth, Hansen, Kane, Miller, Reischauer, Scanlon, Stuart

Absent: Milstein

2E-2 The Congress should direct the Secretary to rebase rates for home health care services in 2011 to reflect the average cost of providing care.

Yes: Behroozi, Bertko, Borman, Butler, Castellanos, Chernew, Crosson, Dean, Ebeler, Hackbarth, Hansen, Kane, Miller, Reischauer, Scanlon, Stuart

Absent: Milstein

2E-3 The Congress should direct the Secretary to assess payment measures that protect the quality of care and ensure incentives for the efficient delivery of home health care. The study should include alternative payment strategies such as blended payments and risk corridors and outcome-based quality incentives.

Yes: Behroozi, Bertko, Borman, Butler, Castellanos, Chernew, Crosson, Dean, Ebeler, Hackbarth, Hansen, Kane, Miller, Reischauer, Scanlon, Stuart

Absent: Milstein

Section 2F: Inpatient rehabilitation facility services

The update to the payment rates for inpatient rehabilitation facility services should be eliminated for fiscal year 2010.

Yes: Behroozi, Bertko, Borman, Butler, Castellanos, Chernew, Crosson, Dean, Ebeler, Hackbarth, Hansen, Kane, Miller, Reischauer, Scanlon, Stuart

Absent: Milstein

Section 2G: Long-term care hospital services

The Secretary should update payment rates for long-term care hospitals for fiscal year 2010 by the projected rate of increase in the rehabilitation, psychiatric, and long-term care hospital market basket index less the Commission's adjustment for productivity growth.

Yes: Behroozi, Bertko, Borman, Butler, Castellanos, Chernew, Crosson, Dean, Ebeler, Hackbarth, Hansen, Kane, Miller, Reischauer, Scanlon, Stuart

Absent: Milstein

Chapter 3: The Medicare Advantage program

No recommendations

Chapter 4: A status report on Part D for 2009

No recommendations

Chapter 5: Public reporting of physicians' financial relationships

5-1 The Congress should require all manufacturers and distributors of drugs, biologicals, medical devices, and medical supplies (and their subsidiaries) to report to the Secretary their financial relationships with:

- physicians, physician groups, and other prescribers;
- pharmacies and pharmacists;
- health plans, pharmacy benefit managers, and their employees;
- hospitals and medical schools;
- organizations that sponsor continuing medical education;
- patient organizations; and
- professional organizations.

Yes: Behroozi, Bertko, Borman, Butler, Castellanos, Chernew, Crosson, Dean, Ebeler, Hackbarth, Hansen, Kane, Miller, Milstein, Reischauer, Scanlon, Stuart

5-2 The Congress should direct the Secretary to post the information submitted by manufacturers on a public website in a format that is searchable by:

- manufacturer;
- recipient's name, location, and specialty (if applicable);
- type of payment;
- name of the related drug or device (if applicable); and
- year.

Yes: Behroozi, Bertko, Borman, Butler, Castellanos, Chernew, Crosson, Dean, Ebeler, Hackbarth, Hansen, Kane, Miller, Milstein, Reischauer, Scanlon, Stuart

5-3 The Congress should require manufacturers and distributors of drugs to report to the Secretary the following information about drug samples:

- each recipient’s name and business address;
- the name, dosage, and number of units of each sample; and
- the date of distribution.

The Secretary should make this information available through data use agreements.

Yes: Behroozi, Bertko, Borman, Butler, Castellanos, Chernew, Crosson, Ebeler, Hackbarth, Hansen, Kane, Miller, Milstein, Reischauer, Scanlon, Stuart

No: Dean

5-4 The Congress should require all hospitals and other entities that bill Medicare for services to annually report the ownership share of each physician who directly or indirectly owns an interest in the entity (excluding publicly traded corporations). The Secretary should post this information on a searchable public website.

Yes: Behroozi, Bertko, Borman, Butler, Castellanos, Chernew, Crosson, Dean, Ebeler, Hackbarth, Hansen, Kane, Miller, Milstein, Reischauer, Scanlon, Stuart

5-5 The Congress should require the Secretary to submit a report, based on the Disclosure of Financial Relationships Report, on the types and prevalence of financial arrangements between hospitals and physicians.

Yes: Behroozi, Bertko, Borman, Butler, Castellanos, Chernew, Crosson, Dean, Ebeler, Hackbarth, Hansen, Kane, Miller, Milstein, Reischauer, Scanlon, Stuart

Chapter 6: Reforming Medicare’s hospice benefit

6-1 The Congress should direct the Secretary to change the Medicare payment system for hospice to:

- have relatively higher payments per day at the beginning of the episode and relatively lower payments per day as the length of the episode increases,
- include a relatively higher payment for the costs associated with patient death at the end of the episode, and
- implement the payment system changes in 2013, with a brief transitional period.

These payment system changes should be implemented in a budget-neutral manner in the first year.

Yes: Behroozi, Bertko, Butler, Castellanos, Chernew, Crosson, Dean, Ebeler, Hackbarth, Hansen, Kane, Miller, Reischauer, Scanlon, Stuart

Absent: Borman, Milstein

6-2A The Congress should direct the Secretary to:

- require that a hospice physician or advanced practice nurse visit the patient to determine continued eligibility prior to the 180th-day recertification and each subsequent recertification and attest that such visits took place,
- require that certifications and recertifications include a brief narrative describing the clinical basis for the patient's prognosis, and
- require that all stays in excess of 180 days be medically reviewed for hospices for which stays exceeding 180 days make up 40 percent or more of their total cases.

Yes: Behroozi, Bertko, Butler, Castellanos, Chernew, Crosson, Dean, Ebeler, Hackbarth, Hansen, Kane, Miller, Reischauer, Scanlon, Stuart

Absent: Borman, Milstein

6-2B The Secretary should direct the Office of Inspector General to investigate:

- the prevalence of financial relationships between hospices and long-term care facilities such as nursing facilities and assisted living facilities that may represent a conflict of interest and influence admissions to hospice,
- differences in patterns of nursing home referrals to hospice,
- the appropriateness of enrollment practices for hospices with unusual utilization patterns (e.g., high frequency of very long stays, very short stays, or enrollment of patients discharged from other hospices), and
- the appropriateness of hospice marketing materials and other admissions practices and potential correlations between length of stay and deficiencies in marketing or admissions practices.

Yes: Behroozi, Bertko, Butler, Castellanos, Chernew, Crosson, Dean, Ebeler, Hackbarth, Hansen, Kane, Miller, Reischauer, Scanlon, Stuart

Absent: Borman, Milstein

6-3 The Secretary should collect additional data on hospice care and improve the quality of all data collected to facilitate the management of the hospice benefit. Additional data could be collected from claims as a condition of payment and from hospice cost reports.

Yes: Behroozi, Bertko, Butler, Castellanos, Chernew, Crosson, Dean, Ebeler, Hackbarth, Hansen, Kane, Miller, Reischauer, Scanlon, Stuart

Absent: Borman, Milstein

Acronyms

Acronyms

AAMC	Association of American Medical Colleges	DFRR	Disclosure of Financial Relationships Report
AARP	(formerly) American Association of Retired Persons	DRA	Deficit Reduction Act of 2005
ACCME	Accreditation Council for Continuing Medical Education	DRG	diagnosis related group
AdvaMed	Advanced Medical Technology Association	DVT	deep vein thrombosis
AHA	American Hospital Association	E&M	evaluation and management
AHRQ	Agency for Healthcare Research and Quality	ED	emergency department
ALOS	average length of stay	EGHP	employer group health plan
AMA	American Medical Association	ESA	erythropoiesis-stimulating agent
AMC	academic medical center	ESRD	end-stage renal disease
AMCP	Academy of Managed Care Pharmacy	FACS	Fellow, American College of Surgeons
AMI	acute myocardial infarction	FDA	Food and Drug Administration
APC	ambulatory payment classification	FEHB	Federal Employees Health Benefits [Program]
APN	advanced practice nurse	FFS	fee-for-service
APR-DRG	all patient refined diagnosis related group	FIM™	Functional Independence Measure™
ASC	ambulatory surgical center	FTC	Federal Trade Commission
ASP	average sales price	FY	fiscal year
AV	arteriovenous	g/dL	grams per deciliter
BBA	Balanced Budget Act of 1997	GAO	Government Accountability Office
BETOS	Berenson-Eggers Type of Service	GDP	gross domestic product
CAH	critical access hospital	HbA1c	hemoglobin A1c
CAHPS®	Consumer Assessment of Healthcare Providers and Systems	H-CAHPS®	Hospital Consumer Assessment of Healthcare Providers and Systems
CAHPS®-FFS	Consumer Assessment of Healthcare Providers and Systems for Medicare fee-for-service	HCC	hierarchical condition category
CAPD	continuous ambulatory peritoneal dialysis	HCFA-10	Health Care Financing Administration-10
CBO	Congressional Budget Office	HCPCS	Healthcare Common Procedure Coding System
CC	complication or comorbidity	HDHP	high-deductible health plan
CCP	coordinated care plan	HEDIS®	Healthcare Effectiveness Data and Information Set
CCPD	continuous cycler-assisted peritoneal dialysis	HHA	home health agency
CFR	Code of Federal Regulations	HHRG	home health resource group
CHF	congestive heart failure	HHS	Department of Health and Human Services
CME	continuing medical education	HI	Hospital Insurance (Medicare Part A)
CMS	Centers for Medicare & Medicaid Services	HMO	health maintenance organization
CON	certificate of need	HOPD	hospital outpatient department
COP	condition of participation	HOS	Health Outcomes Survey
COPD	chronic obstructive pulmonary disease	HRET	Health Research and Educational Trust
CPI-U	consumer price index for all urban consumers	HSC	Center for Studying Health System Change
CPT	Current Procedural Terminology	HSR	hospital-specific rate
CRS	Congressional Research Service	HUD	Department of Housing and Urban Development
CT	computed tomography	HWH	hospital within hospital
CY	calendar year	IME	indirect medical education
		IOM	Institute of Medicine
		IPPS	inpatient prospective payment system

IPS	interim payment system	NKF	National Kidney Foundation
IPF	inpatient psychiatric facility	NORC	(formerly) National Opinion Research Center
IRF	inpatient rehabilitation facility	NPI	National Provider Identifier
IRF-PAI	Inpatient Rehabilitation Facility–Patient Assessment Instrument	NTA	nontherapy ancillary
IRS	Internal Revenue Service	OACT	Office of the Actuary
KFF	Kaiser Family Foundation	OASIS	Outcome and Assessment Information Set
LCD	local coverage determination	OECD	Organisation for Economic Co-operation and Development
LDL	low-density lipoprotein	OIG	Office of Inspector General
LDO	large dialysis organization	OMB	Office of Management and Budget
LIS	low-income [drug] subsidy	OPTN	Organ Procurement and Transplantation Network
LTC-DRG	long-term care diagnosis related group	PAC	post-acute care
LTCH	long-term care hospital	PACE	Program of All-Inclusive Care for the Elderly
LUPA	low utilization payment adjustment	PDP	prescription drug plan
MA	Medicare Advantage	PE	practice expense
MAGI	modified adjusted gross income	PE	pulmonary embolism
MA-PD	Medicare Advantage–Prescription Drug [plan]	PET	positron emission tomography
MDH	Medicare-dependent hospital	PFFS	private fee-for-service
MDS	Minimum Data Set	PHI	private health insurance
MedPAC	Medicare Payment Advisory Commission	PhRMA	Pharmaceutical Research and Manufacturers of America
MedPAR	Medicare Provider Analysis and Review file	P.L.	Public Law
MGMA	Medical Group Management Association	PMPM	per member per month
MI	myocardial infarction	POS	point-of-service (plan)
MIPPA	Medicare Improvements for Patients and Providers Act of 2008	PPO	preferred provider organization
MMA	Medicare Prescription Drug, Improvement, and Modernization Act of 2003	PPS	prospective payment system
MMSEA	Medicare, Medicaid, and SCHIP Extension Act of 2007	PQRI	Physician Quality Reporting Initiative
MPFS	Medicare physician fee schedule	PSI	patient safety indicator
MR	magnetic resonance	QI	qualifying individual
MRI	magnetic resonance imaging	QMB	qualified Medicare beneficiary
MSA	medical savings account	RAC	recovery audit contractor
MS-DRG	Medicare severity–diagnosis related group	RDS	retiree drug subsidy
MS-LTC-DRG	Medicare severity long-term care diagnosis related group	RUC	Relative Value Scale Update Committee
MTMP	medication therapy management program	RUG	resource utilization group
N/A	not applicable	RVU	relative value unit
N/A	not available	RxHCC	prescription drug hierarchical condition category
NAMCS	National Ambulatory Medical Care Survey	RY	rate year
NCQA	National Committee for Quality Assurance	S&P	Standard & Poor’s
NHAMCS	National Hospital Ambulatory Medical Care Survey	SCH	sole community hospital
NIDDK	National Institute of Diabetes and Digestive and Kidney Diseases	SCHIP	State Children’s Health Insurance Program
NIH	National Institutes of Health	SEC	Securities and Exchange Commission
		SGR	sustainable growth rate
		SHIP	State Health Insurance Assistance Program
		SLMB	specified low-income Medicare beneficiary
		SLP	speech–language pathology

SMI	Supplementary Medical Insurance (Medicare Part B)	TEFRA	Tax Equity and Fiscal Responsibility Act of 1982
SNF	skilled nursing facility	TMA	transitional medical assistance
SNP	special needs plan	TMA	TMA, Abstinence Education, and QI Programs Extension Act of 2007
SSO	short-stay outlier	TRHCA	Tax Relief and Health Care Act of 2006
SSS	Social and Scientific Systems	U.S.	United States
TBS	Targeted Beneficiary Survey	USRDS	United States Renal Data System
TC	technical component	VA	Department of Veterans Affairs

More about MedPAC

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Jack C. Ebeler, M.P.A., vice chairman

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Term expires April 2009

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Commissioners' biographies

Mitra Behroozi, J.D., is the executive director of 1199SEIU Benefit and Pension Funds. Ms. Behroozi oversees eight major benefit and pension funds for health care workers. Collectively, the funds are among the largest in the nation. Previously, Ms. Behroozi was a partner with Levy, Ratner & Behroozi, PC, representing New York City unions in collective bargaining negotiations and proceedings. While at the law firm, she also served as union counsel to Taft-Hartley benefit and pension funds. Ms. Behroozi has a law degree from New York University and an undergraduate degree in sociology from Brown University.

John M. Bertko, F.S.A., M.A.A.A., serves as adjunct staff at RAND and as a visiting scholar at the Brookings Institution. He recently retired as the chief actuary for Humana Inc., where he managed the corporate actuarial group and coordinated the work of actuaries on Medicare Advantage, Part D, and consumer-directed health care products. Mr. Bertko has extensive experience with risk adjustment and has served in several public policy advisory roles, including design of prescription drug programs. He is also a member of the panel of health advisors of the Congressional Budget Office. He served the American Academy of Actuaries as a board member from 1994 to 1996 and as vice president for the health practice area from 1995 to 1996. He was a member of the Actuarial Board for Counseling and Discipline from 1996 through 2002. Mr. Bertko is a fellow of the Society of Actuaries and a member of the American Academy of Actuaries. He has a B.S. in mathematics from Case Western Reserve University.

Karen R. Borman, M.D., FACS, is a founding faculty member and professor of surgery at the University of Central Florida College of Medicine. She is board certified in surgery and in surgical critical care. Her clinical focus is on endocrine surgery and her research focus is on surgical education. She is a member of the Board of Governors and of the General Surgery Coding & Reimbursement Committee of the American College of Surgeons. Dr. Borman is a director and an executive committee member of the American Board of Surgery, president-elect of the Association of Program Directors in Surgery, and a test development committee member for the National Board of Medical Examiners. She has worked with the Centers for Medicare & Medicaid Services on issues related to physician payment and service coverage. Dr. Borman was a member of the executive committee and vice-chair of

the American Medical Association's Current Procedural Terminology Editorial Panel. She also served on the Diagnostic and Therapeutic Technology Assessment Panel. Dr. Borman earned her medical degree from Tulane University. Her undergraduate degree in chemistry is from the Georgia Institute of Technology.

Peter W. Butler, M.H.S.A., is a nationally recognized health care executive with more than 25 years of experience in teaching hospitals and health care systems. In addition to being executive vice president and chief operating officer of Rush University Medical Center in Chicago, Illinois, Mr. Butler is an associate professor and chairman of the Department of Health Systems Management at Rush University. Before joining Rush in 2002, he served in senior positions at The Methodist Hospital System in Houston and the Henry Ford Health System in Detroit. Mr. Butler holds an undergraduate degree in psychology from Amherst College and a master's degree in health services administration from the University of Michigan.

Ronald D. Castellanos, M.D., has practiced urology for more than 30 years. For the past four years Dr. Castellanos has been a member, and for the last year the chair, of the Practicing Physicians Advisory Council on issues related to physician payment. Dr. Castellanos was president of the Florida Urologic Society and has worked with several other organizations on health policy, including the American Urologic Association and the American Lithotripsy Society. Dr. Castellanos earned his medical degree from Hahnemann Medical College. His undergraduate degree is from Pennsylvania State University.

Michael Chernew, Ph.D., has been a professor in the Department of Health Care Policy at Harvard Medical School since 2006. Dr. Chernew taught previously at the University of Michigan, where he was co-director of the Robert Wood Johnson Scholars in Health Policy Research Program. He has served on a number of health care committees organized by federal and state governments as well as nonprofit and professional groups. Dr. Chernew co-edits the *American Journal of Managed Care* and serves on the editorial boards of several prominent health care journals. Dr. Chernew earned his undergraduate degree from the University of Pennsylvania and a doctorate in economics from Stanford University.

Francis J. Crosson, M.D., is the associate executive director of the Permanente Medical Group. He was previously senior medical director of the Permanente Federation of medical groups that make up the physician component of Kaiser Permanente. He joined Kaiser Permanente in 1977. He was the founder and executive director of the Federation from 1997 to 2007. He also has experience with prescription drug arrangements and has led efforts on comprehensive public report cards on clinical quality, management of a drug formulary, and adoption of a state-of-the-art electronic medical record. He serves on the boards of the California Medical Association Foundation, the American Medical Group Foundation, and the Advisory Board of the Mayo Health Policy Institute. Dr. Crosson received his undergraduate degree in political science from Georgetown University and his M.D. degree from Georgetown's School of Medicine.

Thomas M. Dean, M.D., is a board-certified family physician who has practiced in Wessington Springs, South Dakota, for 28 years. He is chief of staff at Avera Wesskota Memorial Medical Center. Dr. Dean is on the board of directors of Avera Health Plan, the Bush Foundation Medical Fellowship, and the South Dakota Academy of Family Physicians. He was president of the National Rural Health Association, and he published articles and presented on health care in rural areas. Dr. Dean received the Dr. Robert Hayes Memorial Award for outstanding rural health provider, received the Pioneer Award from the South Dakota Perinatal Association, and was awarded a Bush Foundation Medical Fellowship. Dr. Dean earned his medical degree from the University of Rochester School of Medicine and Dentistry. His undergraduate degree is from Carleton College.

Jack C. Ebeler, M.P.A., is vice chairman of the Commission and a consultant in health care policy. Previously, he served as president and CEO of the Alliance of Community Health Plans. Prior to that, Mr. Ebeler was senior vice president and director of the health care group at the Robert Wood Johnson Foundation. Mr. Ebeler served as deputy assistant secretary for planning and evaluation for health and as acting assistant secretary for planning and evaluation at the U.S. Department of Health and Human Services. Over the years, he has also held positions in the health care industry and on Capitol Hill. Mr. Ebeler is a Distinguished Visitor at the O'Neill Institute at Georgetown University and serves on the health care services board of the Institute of Medicine and the boards of directors of Families USA and Inova Health System in Virginia. Mr. Ebeler holds an M.P.A. from the John F. Kennedy

School of Government at Harvard University and his undergraduate degree is from Dickinson College.

Glenn M. Hackbarth, J.D., M.A., chairman of the Commission, lives in Bend, OR. He has experience as a health care executive, government official, and policy analyst. He was chief executive officer and one of the founders of Harvard Vanguard Medical Associates, a multispecialty group practice in Boston that serves as a major teaching affiliate of Harvard Medical School. Mr. Hackbarth previously served as senior vice president of Harvard Community Health Plan and president of its Health Centers Division, as well as Washington counsel of Intermountain Health Care. He has held various positions at the U.S. Department of Health and Human Services, including deputy administrator of the Health Care Financing Administration (now known as CMS). He currently serves as the vice chairman of the board of the Foundation of the American Board of Internal Medicine. He is also a board member at the National Committee for Quality Assurance (NCQA) and at the Commonwealth Fund. He is also a member of the Commonwealth Fund's Commission on a High Performance Health System. Mr. Hackbarth received his B.A. from Pennsylvania State University and his J.D. and M.A. from Duke University.

Jennie Chin Hansen, R.N., M.S.N., F.A.A.N., of San Francisco, is president of AARP and a senior fellow at University of California's Center for the Health Professions. Ms. Hansen was executive director of On Lok Senior Health Services, the prototype for the Program of All Inclusive Care for the Elderly (PACE), which integrates Medicare and Medicaid finances and care delivery and was signed into federal legislation as a provider type in the Balanced Budget Act of 1997. She has practiced and taught nursing in both urban and rural settings. She currently serves in leadership roles with the National Academy of Social Insurance, Lumetra (California's Quality Improvement Organization), and the Robert Wood Johnson Executive Nurse Fellows Program. Ms. Hansen consults with other foundations on leadership development and independent reviews. She is a Fellow in the American Academy of Nursing. Ms. Hansen received her B.S. from Boston College and her M.S.N. from the University of California, San Francisco.

Nancy M. Kane, D.B.A., is professor of management in the Department of Health Policy and Management and associate dean of education at the Harvard School of Public Health. Dr. Kane directs the Masters in Healthcare Management Program, an executive leadership program

for mid-career physicians leading healthcare organizations. She has taught health care accounting, payment systems, financial analysis, and competitive strategy. Her research interests include measuring hospital financial performance, quantifying community benefits and the value of tax exemption, the competitive structure and performance of hospital and insurance industries, and nonprofit hospital governance. Professor Kane consults with federal and state agencies involved in health system design, oversight, and payment. She is an outside director of the Urban Medical Group, a nonprofit physician group practice providing care to frail elderly in institutional and home settings, and is a member of the Special Commission on the Health Care Payment System in Massachusetts. Prior to obtaining her business training, she practiced as a hospital-based physical therapist. Dr. Kane earned her master's and doctoral degrees in business administration from Harvard Business School.

George N. Miller, Jr., M.H.S.A., has, over the last two decades, managed a series of hospitals, leading financial turnarounds at four of them. Since 2006, Mr. Miller has been president and CEO of Community Mercy Health Partners and senior vice president of Catholic Health Partners, a hospital chain in the Springfield, Ohio, area. Previously, he ran hospitals in Illinois, Texas, and Virginia and is the immediate past president of the National Rural Health Association. Mr. Miller has been an adjunct professor in health services administration at Central Michigan University since 1998. He has an undergraduate degree in business administration from Bowling Green State University and a master's of science in health services administration from Central Michigan University.

Arnold Milstein, M.D., M.P.H., is the medical director of the Pacific Business Group on Health (PBGH) and the chief physician at Mercer Health & Benefits. PBGH is the largest employer health care purchasing coalition in the U.S. Dr. Milstein's work and publications focus on private and public sector health care purchasing strategy, clinical performance measurement, and the psychology of clinical performance improvement. He co-founded both the Leapfrog Group and the Consumer–Purchaser Disclosure Project. He heads performance measurement activities for both initiatives. The *New England Journal of Medicine's* series on employer-sponsored health insurance described him as a “pioneer” in efforts to advance quality of care. In 2005, he was selected for the highest annual award of the National Business Group on Health (NBGH) for nationally recognized innovation and implementation success in health care cost reduction and quality gain. In 2006, he was

elected to the Institute of Medicine. Dr. Milstein has a B.A. in economics from Harvard, an M.D. degree from Tufts University, and an M.P.H. in health services evaluation and planning from the University of California at Berkeley.

Robert D. Reischauer, Ph.D., is president of The Urban Institute. Previously, he was a senior fellow with the Brookings Institution, and from 1989 to 1995 he was the director of the Congressional Budget Office. Dr. Reischauer currently serves on the boards of the Academy of Political Sciences, the Center on Budget and Policy Priorities, and the Committee for a Responsible Federal Budget. He also is a member of the Institute of Medicine, the National Academy of Public Administration, and Harvard Corporation. Dr. Reischauer received his A.B. degree from Harvard College and his M.I.A. and Ph.D. from Columbia University.

William J. Scanlon, Ph.D., is a senior policy advisor with Health Policy R&D. He is also a consultant to the National Health Policy Forum. Dr. Scanlon is a member of the National Committee on Vital and Health Statistics. Before his current positions, Dr. Scanlon was the managing director of health care issues at the U.S. General Accounting Office. Previously, he was co-director of the Center for Health Policy Studies and an associate professor in the Department of Family Medicine at Georgetown University and was a principal research associate in health policy at the Urban Institute. Dr. Scanlon has a Ph.D. in economics from the University of Wisconsin–Madison.

Bruce Stuart, Ph.D., is a professor and executive director of the Peter Lamy Center on Drug Therapy and Aging at the University of Maryland in Baltimore. An experienced research investigator, Dr. Stuart has directed grants and contracts with various federal agencies, private foundations, state governments, and corporations. Dr. Stuart joined the faculty of the University of Maryland's School of Pharmacy in 1997 as the Parke-Davis endowed chair in geriatric pharmacy. Previously, he taught health economics, finance, and research methods at the University of Massachusetts and the Pennsylvania State University. Earlier, Dr. Stuart was director of the health research division in the Michigan Medicaid program. Dr. Stuart was designated a Maryland eminent scholar for his work in geriatric drug use. His current research focuses on the policy implications of the Medicare prescription drug benefit. Dr. Stuart received his economics training at Whitman College and Washington State University.

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